XR-1300R/C2300R

SERVICE MANUAL

AEP Model
UK Model

Ver 1.1 2001.02

Photo: XR-C2300R

Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	MG-36SZ10-32

SPECIFICATIONS

Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.13 % (WRMS)
Frequency response	30 – 15,000 Hz
Signal-to-noise ratio	55 dB

Tuner section

FM

Tuning range	87.5 – 108.0 MHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	0.7 % (stereo), 0.4 % (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

MW/LW

Tuning range	MW: 531 – 1,602 kHz LW: 153 – 279 kHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	MW: 30 µV LW: 50 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	45 W × 4 (at 4 ohms)

General

Outputs	Audio output (XR-C2300R) Power aerial relay control lead Power amplifier control lead
Tone controls	Bass ±8 dB at 100 Hz Treble ±8 dB at 10 kHz
Power requirements	12 V DC car battery (negative earth)
Dimensions	Approx. 188 × 58 × 182 mm (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 163 mm (w/h/d)
Mass	Approx. 1.2 kg
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1)

Design and specifications are subject to change without notice.

FM/MW/LW CASSETTE CAR STEREO

9-870-024-12
2001B0500-1
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Sony Corporation
Audio Entertainment Group
General Engineering Dept.

SONY®

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Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

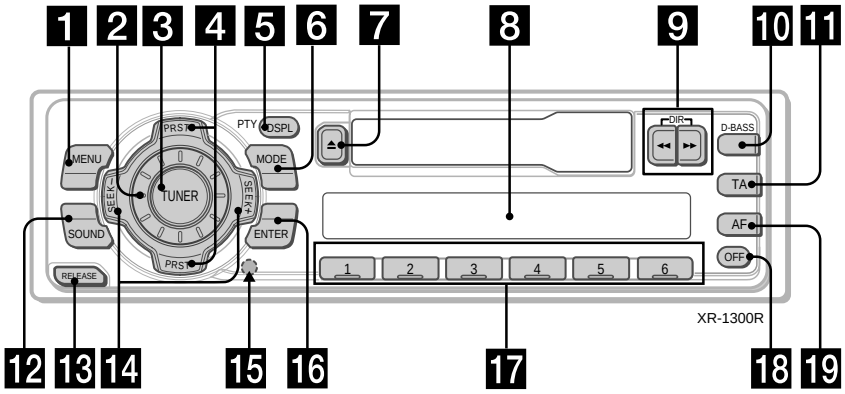
Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

This section is extracted from instruction manual.

(XR-1300R)

Location of controls



Refer to the pages listed for details.

1 MENU button
7, 8, 9, 11, 13, 14, 15

2 Volume control dial

3 TUNER button 8, 9, 12

4 PRST +/– (cursor up/down) buttons
7, 8, 9, 11, 13, 14, 15
During radio reception:
Preset stations select 8, 9

5 DSPL/PTY (display mode change/ programme type) button 14

6 MODE button
During radio reception:
BAND select 8, 9

7 ⏏ (eject) button 7

8 Display window

9 ◀◀/▶▶ (fast winding)/DIR (tape transport direction change) buttons 7

10 D-BASS button 16

11 TA button 12, 13

12 SOUND button 15

13 RELEASE (front panel release) button
6, 17

14 SEEK –/+ (cursor left/right) buttons
7, 8, 9, 11, 13, 14, 15
seek 9

15 Reset button (located on the front side of the unit behind the front panel) 6

16 ENTER button 7, 8, 9, 11, 13, 14, 15

17 Preset number buttons 9, 11

18 OFF button* 6

19 AF button 10, 11, 13

* **Warning when installing in a car without ACC (accessory) position on the ignition key switch**
Be sure to press (OFF) on the unit for two seconds to turn off the clock display after turning off the engine.
When you press (OFF) momentarily, the clock display does not turn off and this causes battery wear.

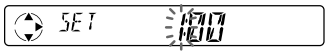
Setting the clock

The clock uses a 24-hour digital indication.

Example: To set the clock to 10:08

1 Press (MENU), then press either side of (PRST) repeatedly until "CLOCK" appears.

❶ **Press (ENTER).**



The hour indication flashes.

❷ **Press either side of (PRST) to set the hour.**

❸ **Press + side of (SEEK).**

The minute indication flashes.

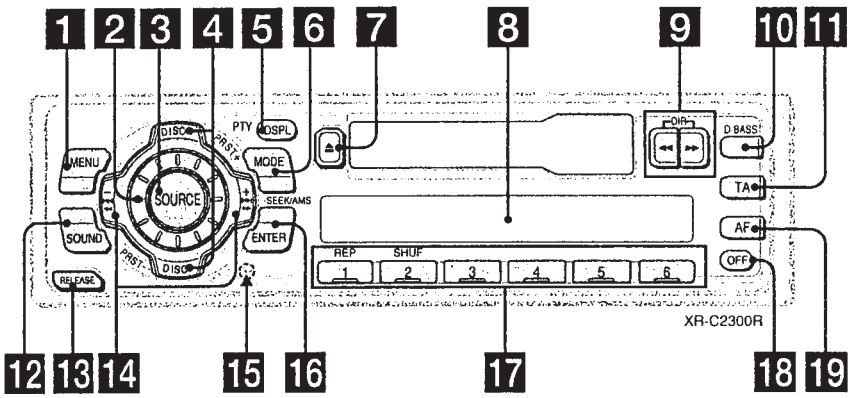
❹ **Press either side of (PRST) to set the minute.**

2 Press (ENTER).

The clock starts.

After the clock setting is complete, the display returns to normal playback mode.

Location of controls



Refer to the pages listed for details.

1 MENU button
7, 8, 9, 10, 12, 14, 15, 16, 18

2 Volume control dial

3 SOURCE (TUNER/CD/MD) button
9, 13, 17

4 PRST/DISC +/– (cursor up/down) buttons
7, 8, 9, 10, 12, 14, 15, 16, 18, 19

During radio reception:
Preset stations select 8, 9, 10

During CD/MD playback:
Disc change 19

5 DSPL/PTY (display mode change/ programme type) button
8, 10, 11, 15, 18

6 MODE button

During radio reception:
BAND select 9

During CD or MD playback:
CD/MD unit select 17

7 ⏏ (eject) button 7

8 Display window

9 ◀◀/▶▶ (fast winding)/DIR (tape transport direction change) buttons 7

10 D-BASS button 17

11 TA button 13, 14

12 SOUND button 16

13 RELEASE (front panel release) button
6, 20

14 SEEK/AMS –/+ (cursor left/right) buttons
7, 8, 9, 10, 12, 14, 15, 16, 18, 19
seek 9, 10
Automatic Music Sensor 19
manual search 19

15 Reset button (located on the front side of the unit behind the front panel) 6

16 ENTER button
7, 8, 9, 10, 12, 14, 15, 16, 18

17 Number buttons
During radio reception
Preset number select 9, 12

During CD/MD playback:
① REP 19
② SHUF 19

18 OFF button* 6

19 AF button 11, 12, 14

* **Warning when installing in a car without ACC (accessory) position on the ignition key switch**
Be sure to press (OFF) on the unit for two seconds to turn off the clock display after turning off the engine.
When you press (OFF) momentarily, the clock display does not turn off and this causes battery wear.

Setting the clock

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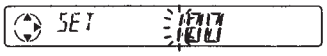
Example: To set the clock to 10:08

1 Press (MENU), then press either side of (PRST/DISC) repeatedly until "CLOCK" appears.

❶ Press (ENTER).



The hour indication flashes.

❷ Press either side of (PRST/DISC) to set the hour.

❸ Press + side of (SEEK/AMS).

The minute indication flashes.

❹ Press either side of (PRST/DISC) to set the minute.

2 Press (ENTER).

The clock starts.

After the clock setting is complete, the display returns to normal playback mode.

Installation

Precautions

- Choose the installation location carefully so that the unit will not interfere with normal driving operations.
- Avoid installing the unit in areas subject to dust, dirt, excessive vibration, or high temperatures, such as in direct sunlight or near heater ducts.
- Use only the supplied mounting hardware for a safe and secure installation.

Mounting angle adjustment

Adjust the mounting angle to less than 20°.

How to detach and attach the front panel

Before installing the unit, detach the front panel.

A To detach

Before detaching the front panel, be sure to press (OFF). Press (RELEASE), then slide the front panel a little to the left, and pull it off towards you.

B To attach

Attach part Ⓐ of the front panel to part Ⓑ of the unit as illustrated and push the left side into position until it clicks.

Instalación

Precauciones

- Elija cuidadosamente el lugar de montaje de forma que la unidad no interfiera las funciones normales de conducción.
- Evite instalar la unidad donde pueda quedar sometida a altas temperaturas, como a la luz solar directa o al aire de calefacción, o a polvo, suciedad o vibraciones excesivas.
- Para realizar una instalación segura y firme, emplee solamente la ferretería de montaje suministrada.

Ajuste del ángulo de montaje

Ajuste el ángulo de montaje a menos de 20°.

Forma de extraer e instalar el panel frontal

Antes de instalar la unidad, extraiga el panel frontal.

A Para extraerlo

Antes de extraer el panel frontal, asegúrese de pulsar (OFF). Pulse (RELEASE), deslice el panel ligeramente hacia la izquierda y tire de él hacia fuera.

B Para instalarlo

Fije la parte Ⓐ del panel frontal a la parte Ⓑ de la unidad tal como muestra la ilustración y ejerza presión sobre el lado izquierdo hasta oír un chasquido.

Montering

Att observera

- Var noga när du väljer var i bilen du monterar bilstereon, så att den inte sitter i vägen när du kör.
- Montera inte bilstereon där den utsätts för värme, t ex solsken eller varmluft, eller där den utsätts för damm, smuts och/eller vibrationer.
- Använd endast de medföljande monteringstillbehören för att vara säker på att bilstereon monteras på säkert och korrekt sätt.

Tillåten monteringsvinkel

Monteringsvinkeln måste vara under 20 grader.

Hur framsidan tas loss/fästs

Ta loss framsidan före bilstereons montering.

A Hur framsidan tas loss

Se till att enheten är avstängd innan du tar bort Frontpanelen. Tryck på (OFF). Tryck sedan på (RELEASE) och skjut frontpanelen lite åt vänster medan du drar den emot dig.

B Hur framsidan fästs i bilstereon

Sätt fast del Ⓐ på frontpanelen på del Ⓑ på enheten enligt bilden och tryck på den vänstra sidan tills det klickar till.

Instalação

Precauções

- Escolha com cuidado um local apropriado para a montagem do aparelho, para que este não interfira com as manobras necessárias à condução do veículo.
- Evite instalar o aparelho onde possa estar sujeito a altas temperaturas, como em locais expostos directamente à luz do sol, ao ar quente dos aquecimentos, ou sujeitos a pó, sujidade ou vibração excessiva.
- Utilize somente o jogo de montagem fornecido para efectuar uma instalação segura.

Ajuste do ângulo de montagem

Ajuste o ângulo de montagem a menos de 20°.

Para retirar e colocar o painel frontal

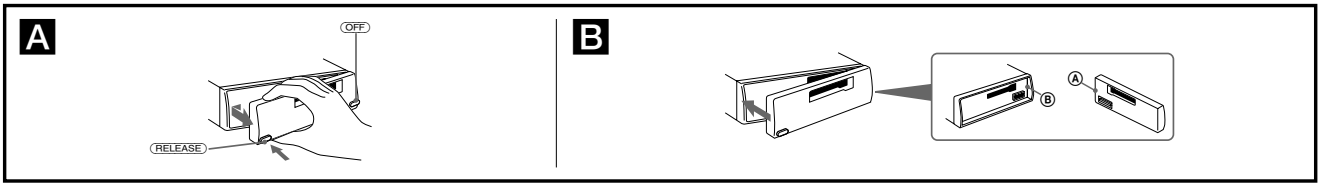
Antes de inciar a insta;ação do aparelho, remova o painel frontal.

A Para remover

Antes de retirar o painel frontal, tem de carregar em (OFF). Carregue em (RELEASE), faça deslizar o painel um pouco para a esquerda e puxe-o para si.

B Para colocar

Encaixe a parte Ⓐ do painel frontal na parte Ⓑ do aparelho, como se mostra na figura, fazendo pressão sobre o painel até ouvir um estalido.

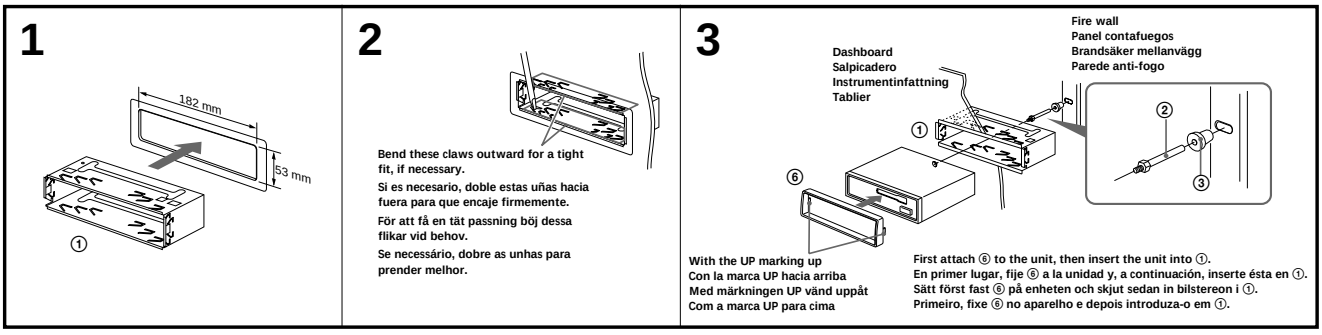


Installation in the dashboard

Instalación en el salpicadero

Montering i instrumentinfattning

Instalação no tablier


1
182 mm
53 mm
1
2
Bend these claws outward for a tight fit, if necessary.
Si es necesario, doble estas uñas hacia fuera para que encaje firmemente.
För att få en tät passning böj dessa flikar vid behov.
Se necessário, dobre as unhas para prender melhor.
3
Fire wall
Panel contafuegos
Brandsäker mellanvägg
Parede anti-fogo
Dashboard
Salpicadero
Instrumentinfattning
Tablier
1
2
3
6
With the UP marking up
Con la marca UP hacia arriba
Med märkningen UP vänd uppåt
Com a marca UP para cima
First attach 6 to the unit, then insert the unit into 1.
En primer lugar, fije 6 a la unidad y, a continuación, inserte ésta en 1.
Sätt först fast 6 på enheten och skjut sedan in bilstereon i 1.
Primeiro, fixe 6 no aparelho e depois introduza-o em 1.

Caution

Remove the protection collar ⑥ before installing.

Precaución

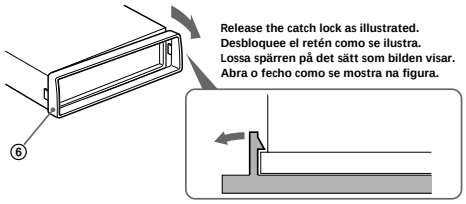
Extraiga el collar de protección ⑥ antes de realizar la instalación.

Varning

Avlägsna skyddsringen ⑥ innan du installerar enheten.

Cuidado

Antes de fazer a instalação retire a moldura protectora ⑥.


6
Release the catch lock as illustrated.
Desbloquee el retén como se ilustra.
Lossa spärren på det sätt som bilden visar.
Abra o fecho como se mostra na figura.

Connections

Cautions

- This unit is designed for negative earth 12 V DC operation only.
- Be careful not to pinch any wires between a screw and the body of the car or this unit or between any moving parts such as the seat railing, etc.
- Connect the power connecting cord ⑤ to the unit and speakers before connecting it to the auxiliary power connector.
- **Run all earth wires to a common earth point.**
- Connect the yellow cord to a free car circuit rated higher than the unit's fuse rating. If you connect this unit in series with other stereo components, the car circuit they are connected to must be rated higher than the sum of the individual components' fuse rating. If there are no car circuits rated as high as the unit's fuse rating, connect the unit directly to the battery. If no car circuits are available for connecting this unit, connect the unit to a car circuit rated higher than the unit's fuse rating in such a way that if the unit blows its fuse, no other circuits will be cut off.

Warning when installing in a car without ACC (accessory) position on the ignition key switch

Be sure to press (OFF) on the unit for two seconds to turn off the clock display after turned off the engine.
When you press (OFF) momentarily, the clock display does not turn off and this causes battery wear.

Notes of connection example

Notes on the control leads
- *The power aerial control lead (blue) supplies +12 V DC when you turn on the unit.*
- *When your car has a built-in FM/MW/LW aerial in the rear/side glass, it is necessary to connect the power aerial control lead (blue) or the accessory power input lead (red) to the power terminal of the existing aerial booster. For details, consult your dealer.*
- *A power aerial without a relay box cannot be used with this unit.*

Warning
If you have a power aerial without a relay box, connecting this unit with the supplied power connecting cord ⑤ may damage the aerial.

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.*
- *Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Be sure to connect passive speakers to these terminals.*

*[1] ***Note for the aerial connecting***
If your car aerial is an ISO (International Organization for Standardization) type, use the supplied adapter ⑦ to connect it.
First connect the car aerial to the supplied adapter, then connect it to the aerial jack of the master unit.

*[2] ***To AMP REMOTE IN of the optional power amplifier***
This connection is only for amplifiers. Connecting any other system may damage the unit.

Conexiones

Precauciones

- Esta unidad ha sido diseñada para alimentarse con 12 V CC, negativo a masa, solamente.
- Tenga cuidado de no atrapar ningún cable entre algún tornillo y la carrocería del automóvil o esta unidad, o entre las partes móviles, como por ejemplo los raíles del asiento, etc.
- Conecte el cable de conexión de alimentación ⑤ a la unidad y los altavoces antes de conectarlo al conector de alimentación auxiliar.
- **Conecte todos los conductores de puesta a masa a un punto común.**
- Conecte el cable amarillo a un circuito libre del automóvil de potencia nominal superior a la del fusible de la unidad. Si conecta esta unidad en serie con otros componentes estéreo, la potencia nominal del circuito del automóvil a los que dichos componentes estén conectados debe ser superior a la suma de la potencia nominal del fusible de los componentes. Si no existen circuitos del automóvil de potencia nominal igual a la del fusible de la unidad, conecte ésta directamente a la batería. Si no hay circuitos del automóvil disponibles para conectar esta unidad, conecte la misma a un circuito del automóvil de potencia nominal superior a la del fusible de la unidad de forma que no se desactiven otros circuitos si el fusible de dicha unidad se funde.

Advertencia sobre la instalación en un automóvil que no disponga de posición ACC (accesorios) en el interruptor de la llave de encendido

Asegúrese de pulsar (OFF) en la unidad durante dos segundos para desactivar la indicación del reloj una vez apagado el motor.
Si pulsa (OFF) momentáneamente, la indicación del reloj no se desactivará y esto causará el desgaste de la batería.

Notas de ejemplo de conexiones

Notas sobre conductores de control
- *El conductor de control de la antena motorizada (azul) suministra +12 V CC al encender la unidad.*
- *Si el automóvil dispone de antena de FM/MW/LW incorporada en el cristal trasero/lateral, será necesario conectar el cable de control de antena motorizada (azul) o el cable de entrada de alimentación accesoria (rojo) al terminal de potencia del amplificador de antena existente. Para más información, consulte con el proveedor.*
- *Con esta unidad no podrá utilizarse una antena motorizada sin caja de relés.*

Advertencia
Si dispone de una antena motorizada sin dispositivo de relé, la conexión de esta unidad con el cable de conexión de alimentación ⑤ suministrado puede dañar la antena.

Conexión para protección de la memoria
Si conecta el conductor de entrada de alimentación amarillo, el circuito de la memoria recibirá siempre alimentación, incluso aunque ponga la llave de encendido en la posición de apagado.

Notas sobre la conexión de los altavoces
- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 ohmios, y con la potencia máxima admisible adecuada, ya que de lo contrario podría dañarlos.*
- *No conecte los terminales del sistema de altavoces al chasis del automóvil, ni los del altavoz izquierdo a los del derecho.*
- *No intente conectar los altavoces en paralelo.*
- *No conecte altavoces activos (con amplificadores incorporados) a los terminales de altavoces de la unidad. Si lo hiciese, podría dañar tales altavoces. Por lo tanto, cerciórese de conectar altavoces pasivos a estos terminales.*

*[1] ***Nota sobre la conexión de la antena***
Si la antena del automóvil es del tipo ISO (International Organization for Standardization), emplee el adaptador suministrado ⑦ para conectarla.
En primer lugar, conecte la antena del automóvil al adaptador suministrado y, a continuación, a la toma de antena de la unidad principal.

*[2] ***Para conectar a AMP REMOTE IN del amplificador de potencia opcional***
Esta conexión es sólo para amplificadores. La conexión de cualquier otro sistema puede dañar la unidad.

Anslutning

Att observera

- Denna bilstereo är endast avsedd för anslutning till ett negativt jordat, 12 V bilbatteri.
- Var noga med att inga kablar kläms mellan någon skruv eller att de blir klämda mellan rörliga delar som t.ex. bilsätet.
- Anslut strömkabeln ⑤ till enheten och högtalarna innan du ansluter den till den yttre strömanslutningen.
- **Dra samtliga jordledningar till en och samma jordningspunkt.**
- Anslut den gula kabeln till en ledig bilkrets med en högre ampere än enhetens. Om du seriekopplar enheten till andra stereokomponenter måste den bilkrets de kopplas till ha en högre ampere än summan av de enskilda delarnas amperestyrka. Om det inte finns några bilkretsar med en så hög amperestyrka som enhetens ska du ansluta enheten direkt till batteriet. Om inga bilkretsar finns för anslutning till enheten ska du ansluta enheten till en bilkrets med en högre ampere än enhetens styrka så att inga andra säkringar går om enhetens säkring smälter.

Var försiktig när du gör installationen i en bil där tändningslåset saknar tillbehörsläge (ACC)

Glöm inte att trycka på (OFF) på enheten under två sekunder för att stänga av klockans teckenfönster efter det att du har stängt av motorn.
Om du bara trycker på (OFF) ett kort ögonblick slocknar inte klockans teckenfönster vilket kan leda till att batteriet laddas ur.

Att observera angående anslutningsexemplen

Att observera angående olika styrkablarna
- *Kontrolledningen f˙r antennen (blÅ) leder +12 V n‰r du slÅr pÅ enheten.*
- *Om bilen har en FM/MW/LW-antenn som är inbyggd i sido- eller bakrutan, måste du ansluta motorantennens styrkabel (blå) eller tilbehörsströmkabeln (röd) till strömterminalen på antennförstärkaren. Din återförsäljare kan ge dig mer information.*
- *En motorantenn utan styrrelädosa kan inte anslutas till denna bilstereo.*

Varning
Om du har en motorantenn utan reläd˙sa kan antennen skadas om du ansluter enheten med den medföljande strömkabeln ⑤.

Anslutning för minnesstöd
När du anslutit den gula, ingående strömkabeln försörjs minneskretsen med ström hela tiden, även när tändlåset slås ifrån.

Att observera angående högtalarnas anslutning
- *Slå av bilstereon innan du ansluter högtalarna.*
- *Anslut endast högtalare, vars impedans varierar från 4 till 8 ohm och som har tillräcklig effekthanteringskapacitet för att skydda högtalarna mot skador.*
- *Anslut inte något av högtalaruttagen till bilens chassi. Anslut inte heller uttagen på höger högtalare till uttagen på vänster högtalare.*
- *Anslut inte högtalarna parallellt.*
- *Anslut inte aktiva högtalare (med inbyggda slutsteg) till bilstereons högtalaruttag, eftersom de kan skada de aktiva högtalarna. Var noga med att bara ansluta passiva högtalare till dessa uttag.*

*[1] ***Angående antennanslutning***
Om bilantennen är av ISO-typ (International Organization for Standardization), använder du medföljande adapter ⑦ för att ansluta den.
Anslut först bilantennen till medföljande adapter och därefter till antennuttaget på huvudenheten.

*[2] ***Ansluta till AMP REMOTE IN på den valfria effektförstärkaren***
Denna anslutning gäller endast för högtalare. Om du ansluter något annat system kan enheten skadas.

Ligações

Advertência

- Este aparelho foi projectado para funcionar somente com 12 V CC, terra negativa.
- Tenha cuidado para que os fios não fiquem entalados entre os parafusos e a carroçaria do automóvel ou a caixa do aparelho nem entre as peças móveis, por exemplo, as calhas dos bancos, etc.
- Ligue o cabo de alimentação de corrente ⑤ ao aparelho e aos alifalantes antes de o ligar ao conector de corrente auxiliar.
- **Ligue todos os fios terra num ponto comum na carroçaria.**
- Ligue o cabo amarelo a um circuito eléctrico livre do automóvel, cuja tensão seja superior à dos fusíveis do aparelho. Se ligar este aparelho em série com outros componentes estéreo, a tensão do circuito eléctrico do automóvel onde os ligar tem de ser superior à soma das tensões dos fusíveis de todos os componentes individuais. Se não houver nenhum circuito eléctrico do automóvel com uma tensão tão elevada como a dos fusíveis do aparelho, ligue-o directamente à bateria. Se não estiver disponível nenhum circuito eléctrico do automóvel para ligar aparelho, ligue-o a um circuito eléctrico do automóvel com uma tensão superior à dos fusíveis do aparelho, de tal modo que, se o aparelho rebentar os fusíveis respectivos, nenhum outro circuito seja cortado.

Aviso sobre a instalação num automóvel sem posição ACC (acessórios) na chave de ignição

Verifique se carregou em (OFF) no aparelho durante dois segundos para desactivar o visor do relógio depois de ter desligado o motor.
Se carregar durante alguns momentos em (OFF), não desactiva o visor do relógio o que provoca o desgaste da bateria.

Notas sobre o exemplo de ligação

Notas sobre os fios de controlo
- *O fio de controlo da antena elÊctrica (azul) fornece +12 V CC quando liga o aparelho.*
- *Se o seu automóvel tiver uma antena de FM/MW/LW montada no vidro traseiro/lateral, tem de ligar o fio de controlo da antena eléctrica (azul) ou o fio de entrada de alimentação para os acessórios (vermelho) ao terminal de alimentação do intensificador do sinal da antena existente.*
- *Não pode utilizar uma antena eléctrica sem caixa de relé com este aparelho.*

Advertência
Se a antena eléctrica não tiver uma caixa de relé, o facto de ligar este aparelho com o cabo de alimentação ⑤ fornecido, pode provocar danos na antena.

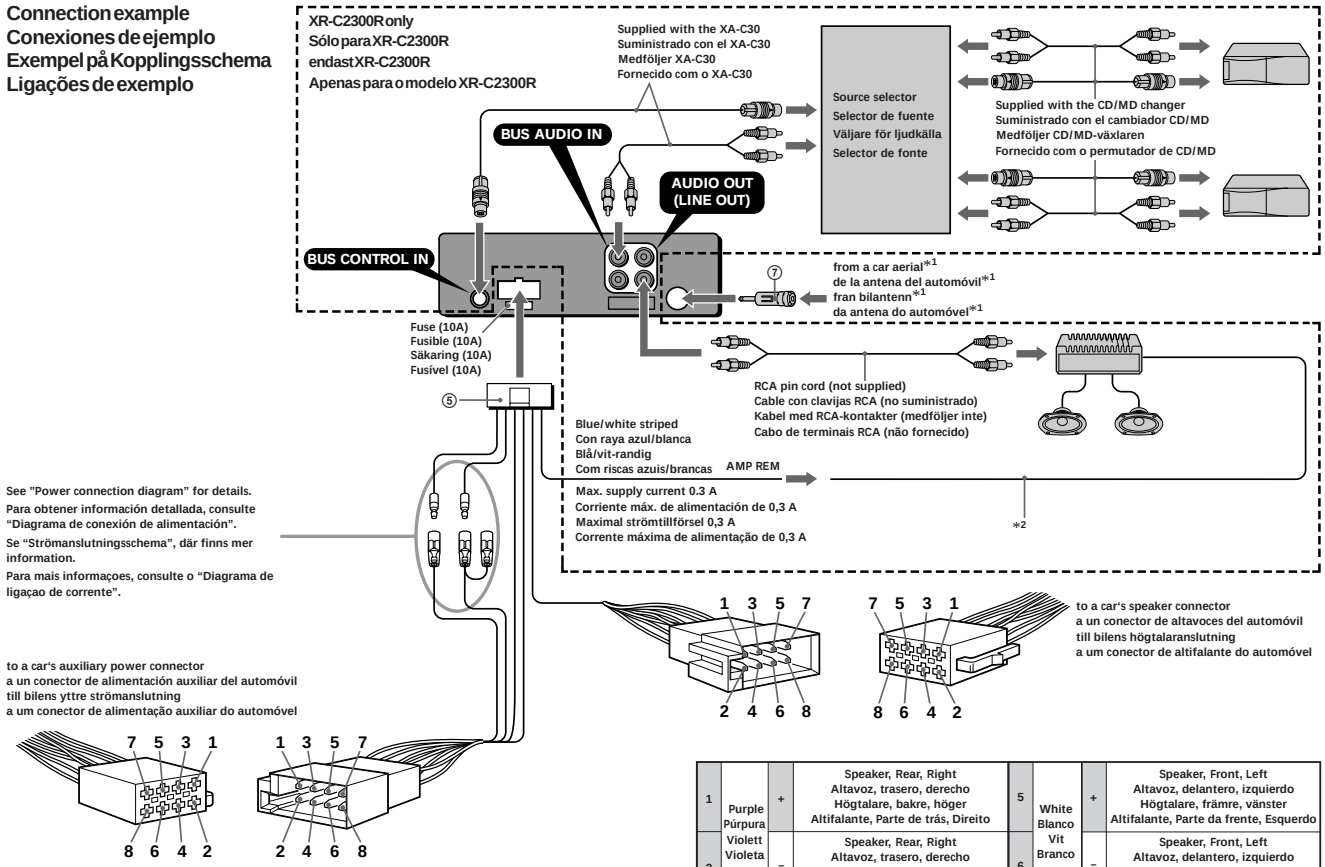
Ligação para alimentação contínua da memória
Quando o fio amarelo de entrada de alimentação for ligado, os circuitos de memória ficarão com alimentação contínua, mesmo se a chave de ignição estiver desligada.

Notas sobre a ligação dos altifalantes
- *Antes de ligar os altifalantes, desligue o aparelho.*
- *Utilize altifalantes com impedância de 4 a 8 ohm, e com capacidade admissível de potência adequada. Caso contrário, os altifalantes poderão sofrer avarias.*
- *Não ligue os terminais do sistema de altifalantes ao chassis do automóvel, e não ligue os terminais do altifalante direito aos terminais do altifalante esquerdo.*
- *Não tente ligar os altifalantes em paralelo.*
- *Não ligue nenhum sistema de altifalantes activos (com amplificadores incorporados) aos terminais dos altifalantes do aparelho. Caso o faça, poderá avariar o sistema de altifalantes activos. Portanto, não se esqueça de ligar altifalantes passivos a estes terminais.*

*[1] ***Nota referente à ligação da antena***
Se a antena do automóvel for uma antena de tipo ISO (International Organization for Standardization), utilize o adaptador fornecido ⑦ para fazer a ligação respectiva.
Ligue primeiro a antena do automóvel ao adaptador fornecido e depois à ficha tipo jack de antena do sistema principal.

*[2] ***Para ligação a AMP REMOTE IN do amplificador de potência adicional***
Esta ligação destina-se apenas aos amplificadores. A ligação de qualquer outro sistema pode provocar avarias no aparelho.

Connection example
Conexiones de ejemplo
Exempel på Kopplingsschema
Ligações de exemplo


XR-C2300R only
Sólo para XR-C2300R
endast XR-C2300R
Apenas para o modelo XR-C2300R
Supplied with the XA-C30
Suministrado con el XA-C30
Medföljer XA-C30
Fornecido com o XA-C30
Source selector
Selector de fuente
Väljare för ljudkälla
Selector de fonte
Supplied with the CD/MD changer
Suministrado con el cambiador CD/MD
Medföljer CD/MD-växlaren
Fornecido com o permutador de CD/MD
BUS AUDIO IN
AUDIO OUT (LINE OUT)
BUS CONTROL IN
from a car aerial*1
de la antena del automóvil*1
fran bilantenn*1
da antena do automóvel*1
Fuse (10A)
Fusible (10A)
Säkaring (10A)
Fusível (10A)
RCA pin cord (not supplied)
Cable con clavijas RCA (no suministrado)
Kabel med RCA-kontakter (medföljer inte)
Cabo de terminais RCA (não fornecido)
Blue/white striped
Con raya azul/blanca
Blå/vit-randig
Com riscas azuis/brancas
AMP REM
Max. supply current 0.3 A
Corriente máx. de alimentación de 0,3 A
Maximal strömtillförsel 0,3 A
Corrente máxima de alimentação de 0,3 A
*2
See "Power connection diagram" for details.
Para obtener información detallada, consulte "Diagrama de conexión de alimentación".
Se "Strömanslutningsschema", där finns mer information.
Para mais informaçoes, consulte o "Diagrama de ligaçao de corrente".
to a car's auxiliary power connector
a un conector de alimentación auxiliar del automóvil
till bilens yttre strömanslutning
a um conector de alimentação auxiliar do automóvel
to a car's speaker connector
a un conector de altavoces del automóvil
till bilens högtalaranslutning
a um conector de altifalante do automóvel
1 3 5 7
2 4 6 8
7 5 3 1
8 6 4 2

4	Yellow Amarillo Gul Amarelo	continuous power supply suministro de alimentación continua kontinuerlig strömförsörjning alimentação de corrente contínua	7	Red Rojo Röd Vermelho	switched power supply suministro de alimentación conmutado switchad strömförsörjning alimentação de corrente comutada
5	Blue Azul Blå Azul	power aerial control control de antena motorizada elektrisk antenn antena eléctrica	8	Black Negro Svart Preto	earth toma de tierra jord Terra

Positions 1, 2 ,3 and 6 do not have pins.
Las posiciones 1, 2 ,3 y 6 no disponen de pines.
As posições 1, 2, 3 e 6 não têm pinos.
Positionerna 1, 2, 3 och 6 saknar stift.

1	Purple Púrpura	+	Speaker, Rear, Right Altavoz, trasero, derecho Högtalare, bakre, höger Altifalante, Parte de trás, Direito	5	White Blanco Vit Branco	+	Speaker, Front, Left Altavoz, delantero, izquierdo Högtalare, främre, vänster Altifalante, Parte da frente, Esquerdo
2	Violett Violeta	–	Speaker, Rear, Right Altavoz, trasero, derecho Högtalare, bakre, höger Altifalante, Parte de trás, Direito	6		–	Speaker, Front, Left Altavoz, delantero, izquierdo Högtalare, främre, vänster Altifalante, Parte da frente, Esquerdo
3	Grey Gris Grå Cinzento	+	Speaker, Front, Right Altavoz, delantero, derecho Högtalare, främre, höger Altifalante, Parte da frente, Direito	7	Green Verde Grön Verde	+	Speaker, Rear, Left Altavoz, trasero, izquierdo Högtalare, bakre, vänster Altifalante, Parte de trás, Esquerdo
4		–	Speaker, Front, Right Altavoz, delantero, derecho Högtalare, främre, höger Altifalante, Parte da frente, Direito	8		–	Speaker, Rear, Left Altavoz, trasero, izquierdo Högtalare, bakre, vänster Altifalante, Parte de trás, Esquerdo

Negative polarity positions 2, 4, 6, and 8 have striped cords.
Las posiciones de polaridad negativa 2, 4, 6 y 8 tienen cables con raya.
As posições 2, 4, 6 e 8 (polaridade negativa) têm cabos às riscas.
De negativa polpositionerna 2, 4, 6 och 8 har randiga kablar.

Power connection diagram

Auxiliary power connector may vary depending on the car. Check your car's auxiliary power connector diagram to make sure the connections match correctly. There are three basic types (illustrated below). You may need to switch the positions of the red and yellow leads in the car stereo's power connecting cord.
After matching the connections and switched power supply leads correctly, connect the unit to the car's power supply. If you have any questions and problems connecting your unit that are not covered in this manual, please consult the car dealer.

Diagrama de conexión de alimentación

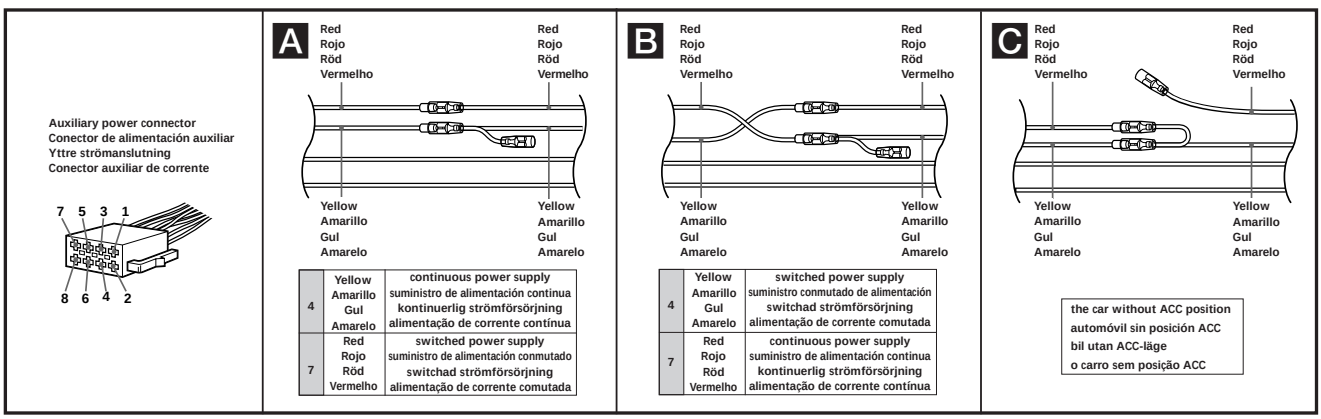
El conector de alimentación auxiliar puede variar en función del automóvil. Compruebe el diagrama del conector de alimentación auxiliar del automóvil para asegurarse de que las conexiones coinciden correctamente. Existen tres tipos básicos, ilustrados a continuación. Es posible que sea preciso cambiar las posiciones de los cables rojo y amarillo del cable de conexión de alimentación del sistema estéreo del automóvil. Después de hacer coincidir correctamente las conexiones y los cables de alimentación conmutada, conecte la unidad al suministro de alimentación del automóvil. Si desea realizar alguna consulta o solucionar algún problema referentes a la conexión de la unidad que no aparezcan en este manual, consulte con el concesionario automovilístico.

Strömanslutningsschema

Typen av yttre strömanslutning varierar från bil till bil. Kontrollera schemat till strömanslutningen så att du ansluter på rätt sätt. Det finns tre grundläggande anslutningstyper (visas nedan). Eventuellt kan du behöva byta plats på de röda och gula ledarna i bilstereons strömanslutningskabel.
Koppla kablarna för kontinuerlig respektive switchad strömförsörjning på rätt sätt och anslut sedan enheten till bilens strömanslutning. Om du får problem eller har frågor som inte besvaras i den här bruksanvisningen kan du kontakta bilåterförsäljaren.

Diagrama de ligação de corrente

O conector auxiliar de corrente pode variar de carro para carro. Verifique o diagrama do conector auxiliar de corrente do seu automóvel para se certificar de que as ligações estão bem feitas. Existem três tipos de conectores (ilustrados abaixo). Pode ter que mudar as posições dos fios vermelho e amarelo do cabo de ligação da alimentação do sistema estéreo do automóvel. Depois de fazer a correspondência entre as ligações e os fios de alimentação de corrente comutada, ligue o aparelho à fonte de alimentação do carro. Se tiver alguma dúvida ou problema relacionado com o aparelho que não esteja incluído neste manual, consulte o concessionário.



4	Yellow Amarillo Gul Amarelo	continuous power supply suministro de alimentación continua kontinuerlig strömförsörjning alimentação de corrente contínua
7	Red Rojo Röd Vermelho	switched power supply suministro de alimentación conmutado switchad strömförsörjning alimentação de corrente comutada

4	Yellow Amarillo Gul Amarelo	switched power supply suministro conmutado de alimentación switchad strömförsörjning alimentação de corrente comutada
7	Red Rojo Röd Vermelho	continuous power supply suministro de alimentación continua kontinuerlig strömförsörjning alimentação de corrente contínua

Conection diagram (XR-C2300R only)
Diagrama de conexiones (sólo para XR-C2300R)
Kopplingsschema (endast XR-C2300R)
Diagrama de ligações (Apenas para o modelo XR-C2300R)

Equipment used in illustrations (not supplied)
Equipo utilizado en las ilustraciones (no suministrado)
Utrustning som visas i illustrationer (medföljer inte)
Equipamento utilizado nas ilustrações (não fornecido)

Front speaker
Altavoz delantero
Främre högtalare
Altifalante dianteiro

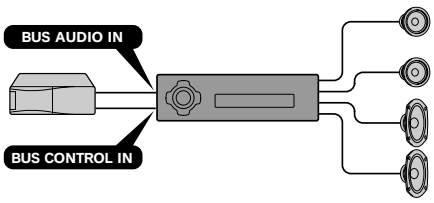
Power amplifier
Amplificador de potencia
Effektförstärkare
Amplificador de potência

Rear speaker
Altavoz trasero
Bakre högtalare
Altifalante traseiro

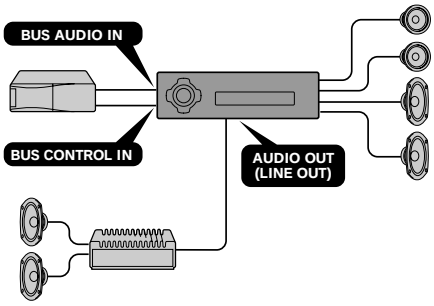
CD/MD changer
Cambiador de CD/MD
CD/MD-skivväxlare
Permutador CD/MD

For connecting two or more changers, the source selector XA-C30 (optional) is necessary.
Si desea conectar dos o más cambiadores, necesitará el selector de fuente XA-C30 (opcional).
För anslutning av två eller flera växlare krävs väljaren XA-C30 (tillval).
Para ligar dois ou mais permutadores, é necessário o selector de fonte XA-C30 (opcional).

A



B



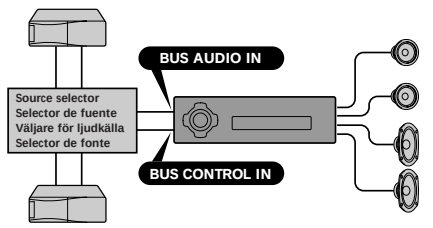
Notes
- *Be sure to connect the earth cord before connecting the amplifier.*
- *If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.*

Notas
- *Asegúrese de conectar primero el cable de puesta a masa antes de realizar la conexión al amplificador.*
- *Si conecta un amplificador de potencia opcional y no utiliza el incorporado, los pitidos se desactivarán.*

Observera
- *Var noga med att först ansluta jorden, innan du ansluter förstärkaren.*
- *Om du väljer att använda en annan förstärkare i stället för den inbyggda, kommer ljudsignalen att avaktiveras.*

Notas
- *Antes de fazer a ligação ao amplificador tem de ligar primeiro o cabo de ligação à terra.*
- *Se ligar um amplificador de potência opcional e não utilizar o amplificador integrado, desactiva o sinal sonoro.*

C



Reset button

When the installation and connections are complete, be sure to press the reset button with a ballpoint pen, etc.

Nollställningsknappen

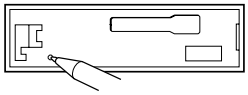
Kom ihåg att använda en penna eller något annat spetsigt föremål för att trycka på nollställningsknappen när anslutningen och monteringen är klar.

Botón de reposición

Cuando finalice la instalación y las conexiones, cerciórese de presionar el botón de reposición con un bolígrafo, etc.

Botão de reinicialização

Quando terminar a instalação e as ligações, não se esqueça de carregar no botão de reinicialização com a ponta de uma caneta, etc.



Caution

Cautionary notice for handling the bracket ①.
Handle the bracket carefully to avoid injuring your fingers.

Precaución

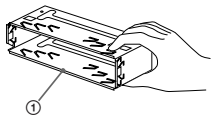
Advertencia sobre la manipulación del soporte ①.
Tenga mucho cuidado al manipular el soporte para evitar posibles lesiones en los dedos.

Varning

Att observera angående konsolen ①.
Hantera konsolen med största aktsamhet så att du inte skadar fingrarna.

Cuidado

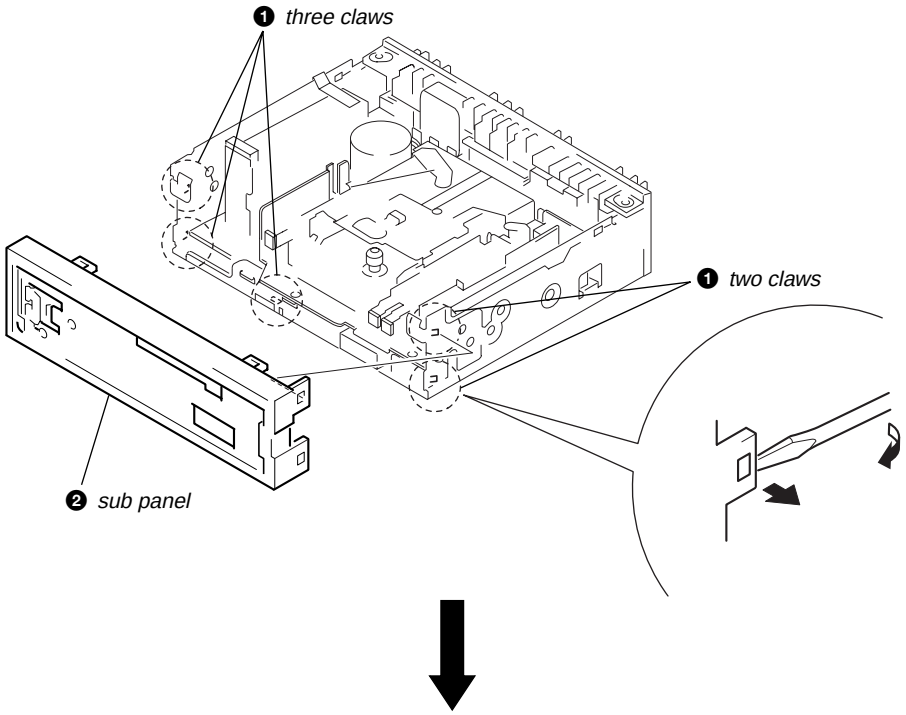
Aviso sobre as precauções a tomar no manuseamento do suporte ①.
Pegue no suporte com cuidado para não magoar os dedos.



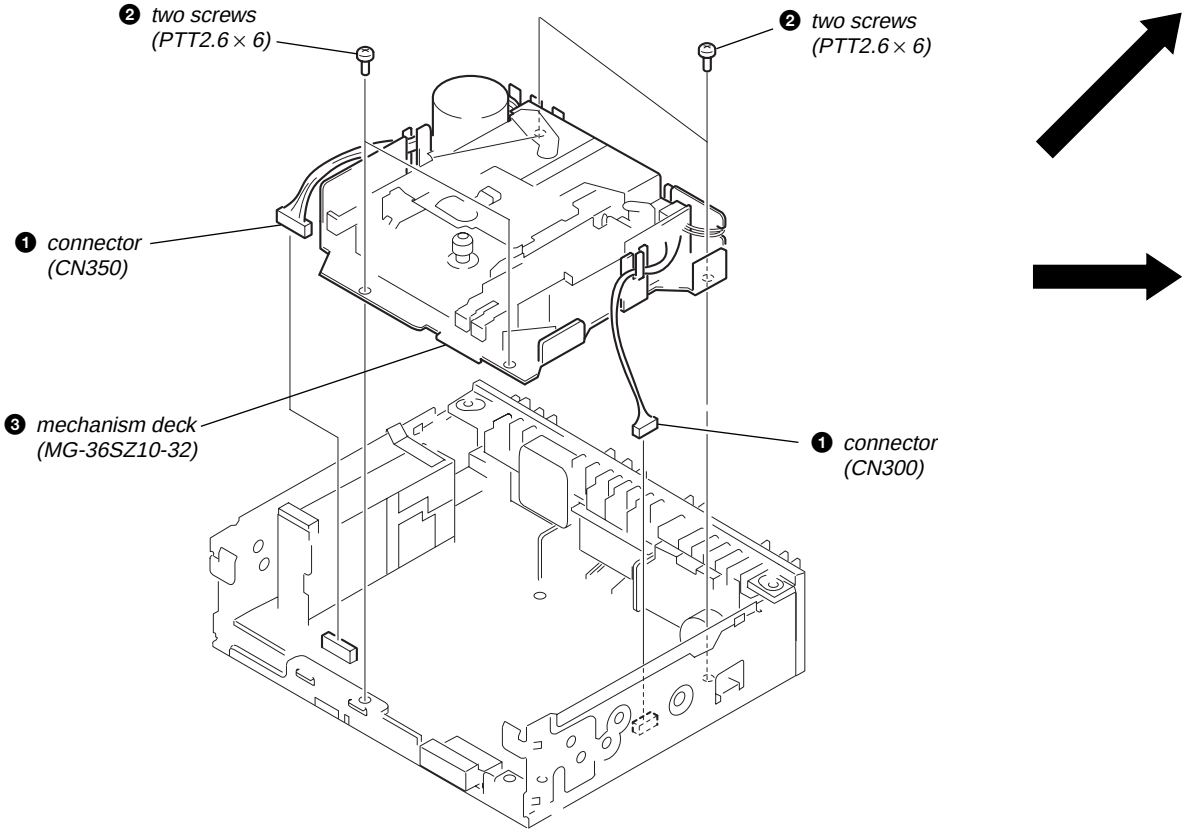
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

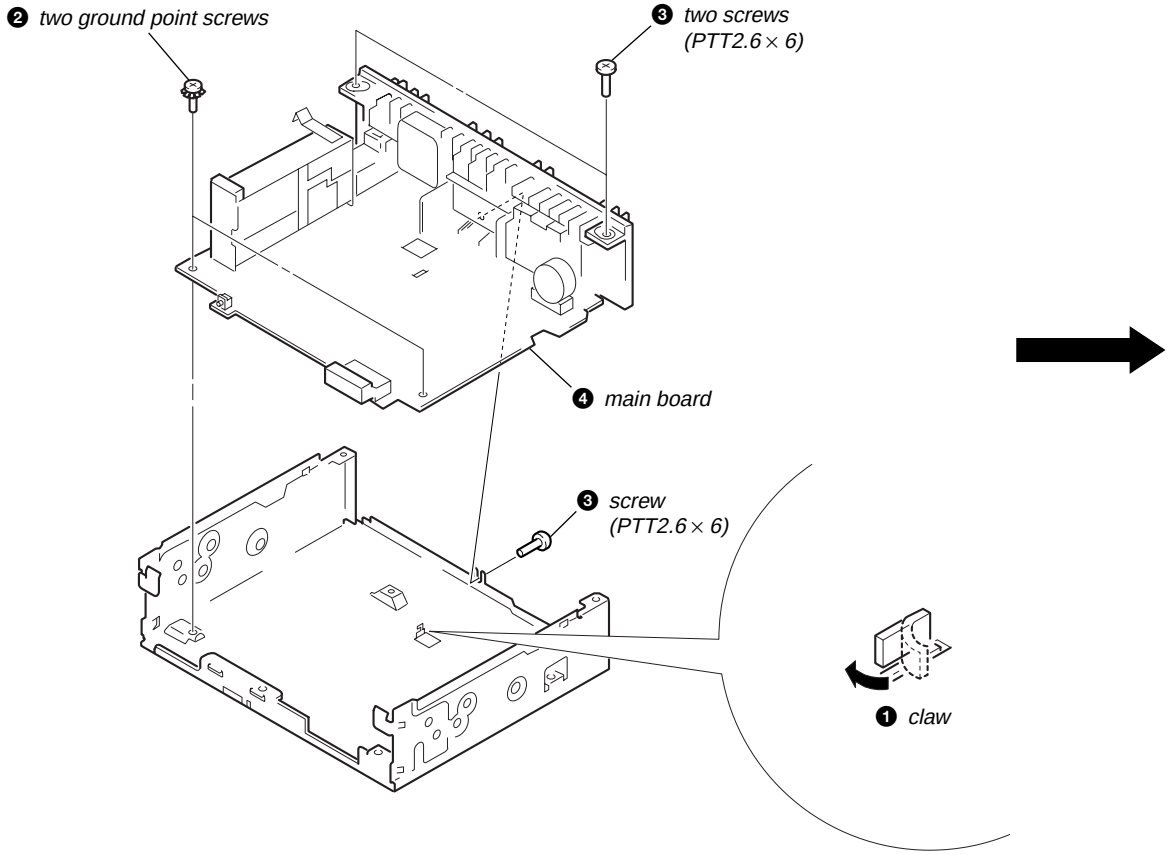
SUB PANEL



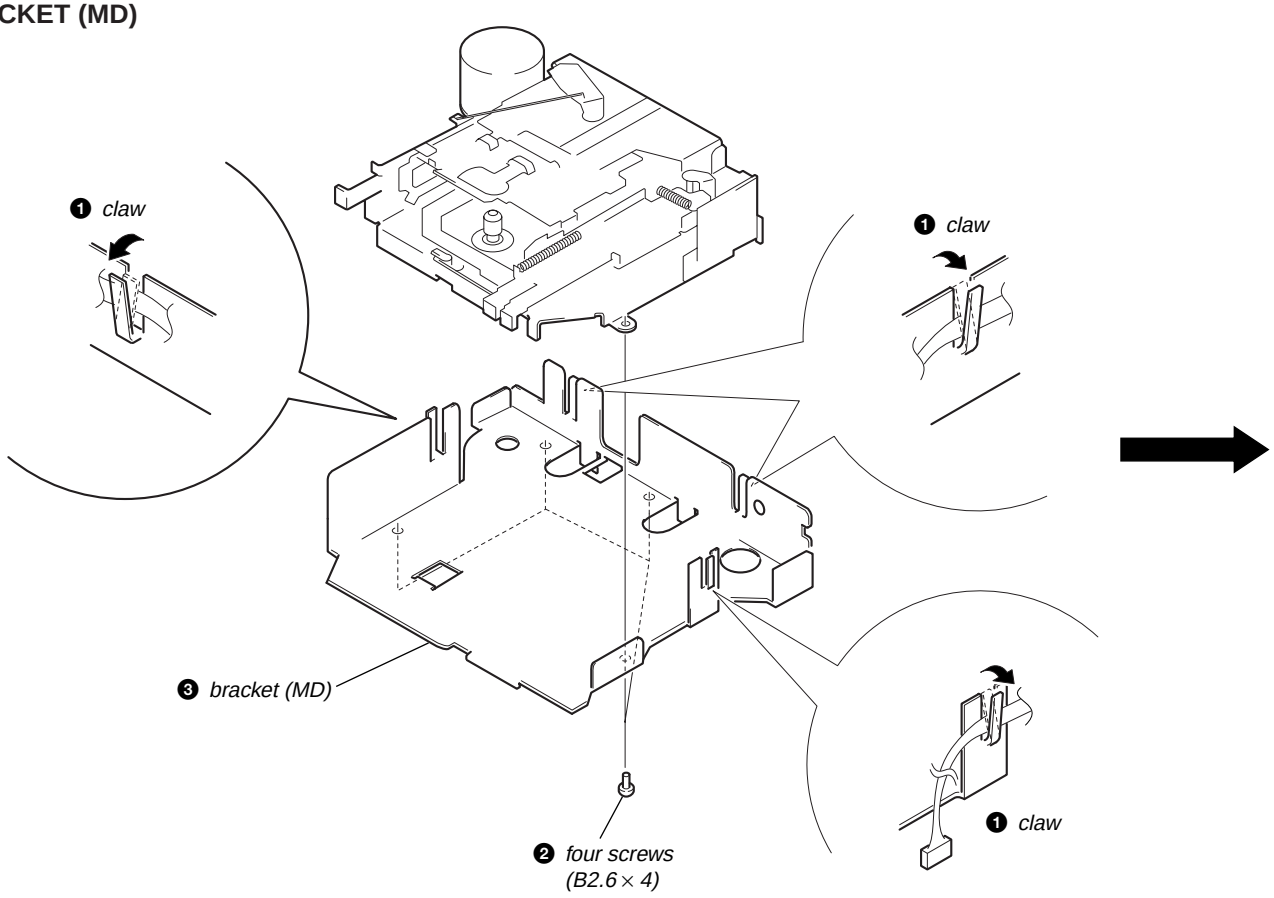
MECHANISM DECK (MG-36SZ10-32)



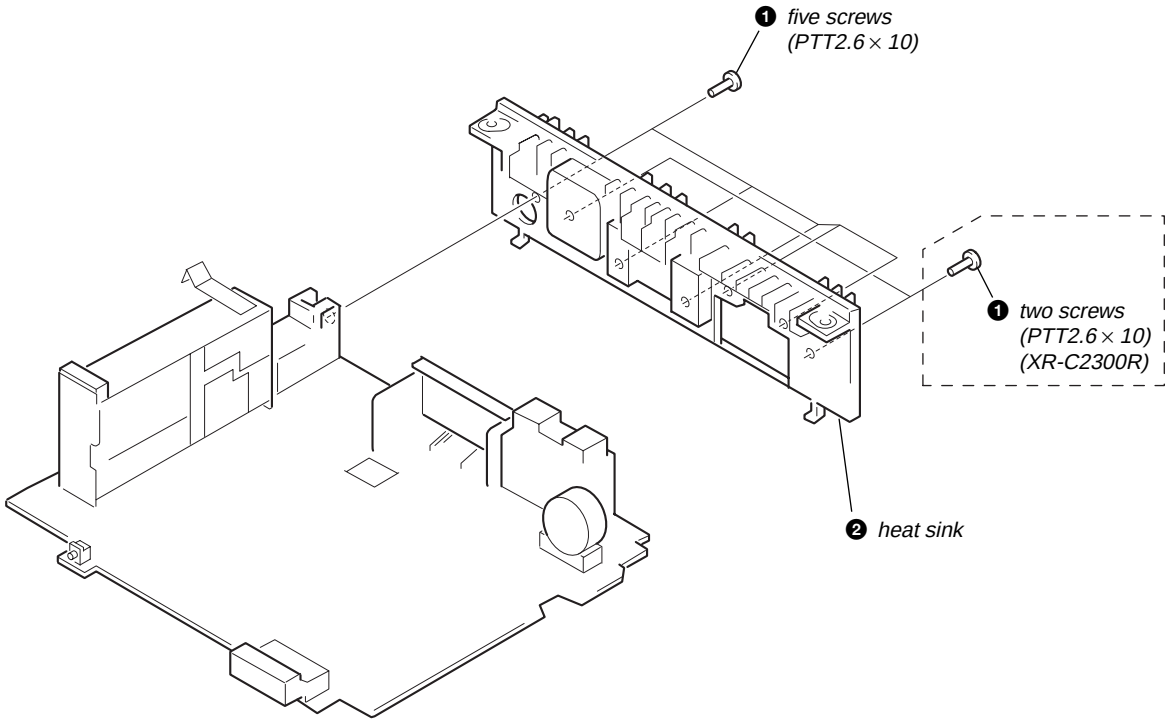
MAIN BOARD



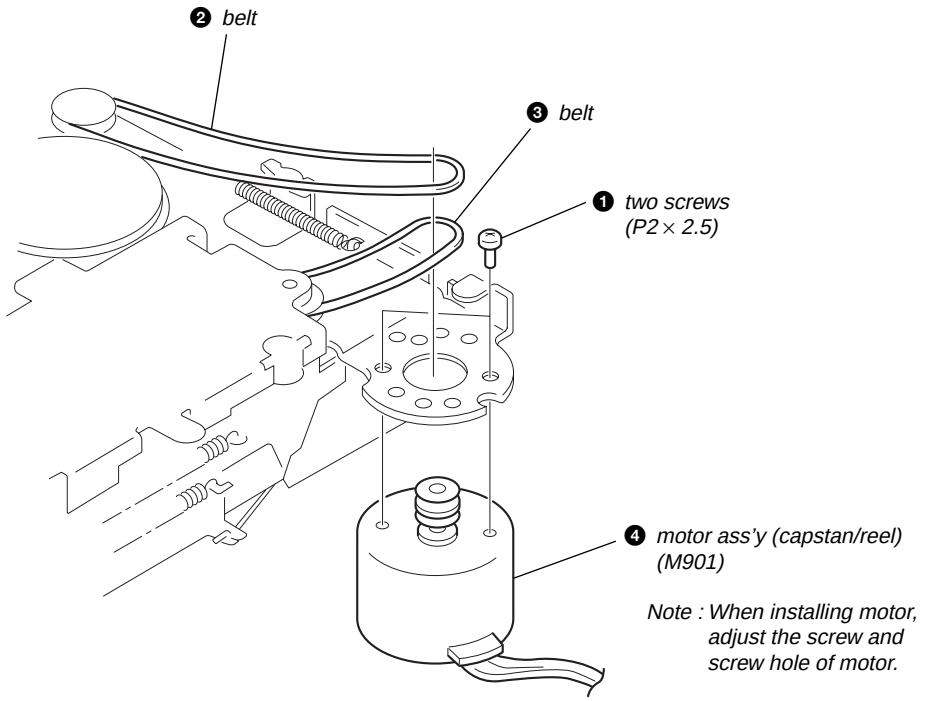
BRACKET (MD)



HEAT SINK



MOTOR ASS'Y (CAPSTAN/REEL) (M901)



SECTION 3
MECHANICAL ADJUSTMENTS

1. Clean the following parts with a denatured-alcohol-moistened swab:
   playback head pinch roller
   rubber belt capstan
   idler
2. Demagnetize the playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. The adjustments should be performed with the power supply voltage (14.4 V) unless otherwise noted.

• Torque Measurement

Mode	Torque Meter	Meter Reading
Forward	CQ-102C	2.46 – 5.39 mN•m (25 – 55 g•cm) (0.35 – 0.76 oz•inch)
Forward Back Tension	CQ-102C	0.15 – 0.39 mN•m (1.5 – 4 g•cm) (0.02 – 0.06 oz•inch)
Reverse	CQ-102RC	2.46 – 5.39 mN•m (25 – 55 g•cm) (0.35 – 0.76 oz•inch)
Reverse Back Tension	CQ-102RC	0.15– 0.39 mN•m (1.5 – 4 g•cm) (0.02 – 0.06 oz•inch)
FF, REW	CQ-201B	4.91 – 14.70 mN•m (50 – 150 g•cm) (0.69 – 2.08 oz•inch)

• Tape Tension Measurement

Mode	Tension Meter	Meter Reading
Forward	CQ-403A	more than 5.89 mN•m (more than 60 g) (more than 2.12 oz)
Reverse	CQ-403R	

SECTION 4
ELECTRICAL ADJUSTMENTS

TEST MODE

This set have the test mode function. In the test mode, FM Auto Seek/Stop Level, FM RDS S-Meter adjustments and MW Auto Seek/Stop Level check can be performed easier than it in ordinary procedure.

<Set the Test Mode>

1. Turn ON the regulated power supply. (All LEDs on the set lights up, and the clock is displayed.)
   Note: Press the [OFF] button, if the clock is not displayed.
2. Push the preset [4] button.
3. Push the preset [5] button.
4. Press the preset [1] button for more than two seconds.
5. Then the display indicates all lights, the test mode is set.

<Release the Test mode>

1. Push the [OFF] button.

TAPE DECK SECTION

0 dB= 0.775 V

1. The adjustments should be performed in the order given in this service manual.
2. The adjustments should be performed for both L-CH and R-CH.

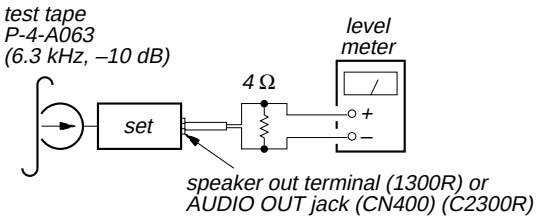
Test Tape

Type	Signal	Used for
P-4-A063	6.3 kHz, –10 dB	head azimuth adjustment
WS-48A	3 kHz, 0 dB	tape speed adjustment

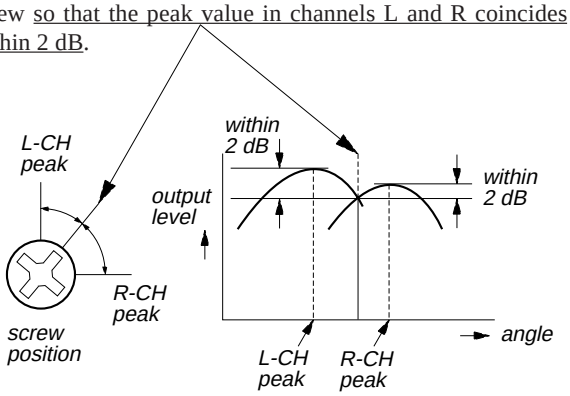
PB Head Azimuth Adjustment

Procedure:

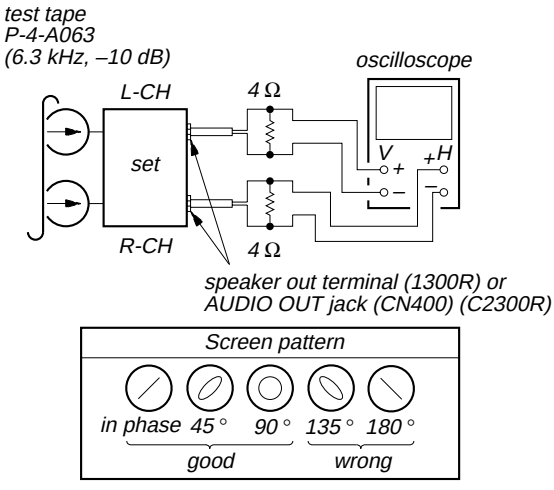
1. Put the set into the FWD PB mode.



2. Turn the screw and check the output peak value. Adjust the screw so that the peak value in channels L and R coincides within 2 dB.

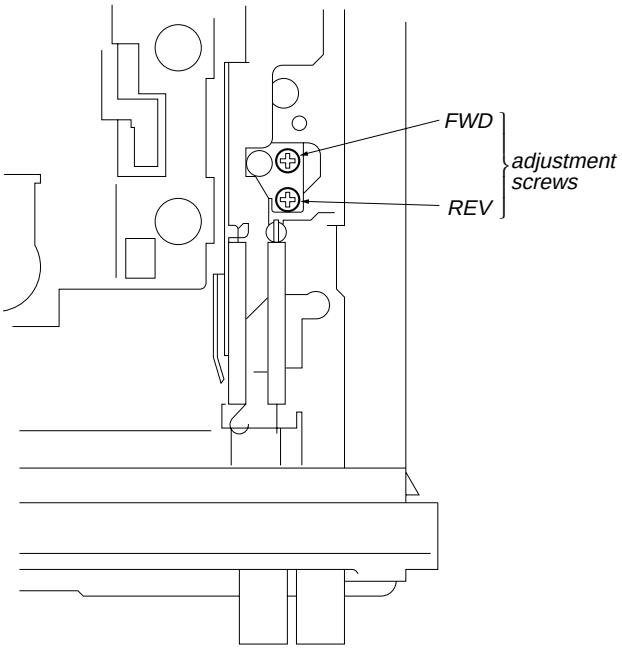


3. Check the phase in the FWD PB mode.



4. Repeat the above adjustment for the REV PB mode.
5. Check that output level difference between FWD PB mode and REV PB mode is within 4 dB.

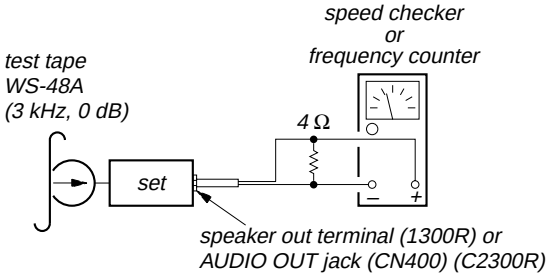
Adjustment Location: PB head



See the adjustment location from on page 16 for the adjustment.

Tape Speed Adjustment

Setting:



Procedure:

1. Put the set into the FWD PB mode.
2. Adjust adjustment resistor for inside capstan motor so that the reading on the speed checker or frequency counter becomes in specification.

Specification: Constant speed

Speed checker	Frequency counter
–2 to +3%	2,940 to 3,090 Hz

Adjustment Location: See page 16.

TUNER SECTION

0 dB=1 µV

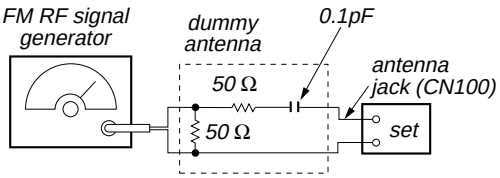
Cautions during repair
When the tuner unit is defective, replace it by a new one because its internal block is difficult to repair.

Note: Adjust the tuner section in the sequence shown below.

1. FM Auto Seek/Stop Level Adjustment
2. FM Stereo Separation Adjustment
3. FM RDS S-Meter Adjustment
4. MW Auto Seek/Stop Level Adjustment

FM Auto Seek/Stop Level Adjustment

Setting:
TUNER (1300R) or SOURCE (C2300R) button: FM

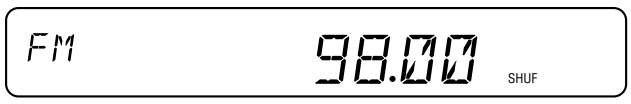


Carrier frequency : 98.0 MHz
Output level : 22 dB (12.6 µV)
Mode : mono
Modulation : 1 kHz, 22.5 kHz deviation (30%)

Procedure:

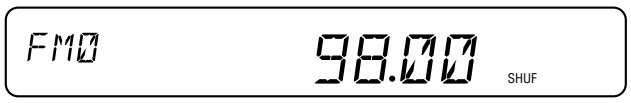
1. Set to the test mode. (See page 12)
2. Push the TUNER (1300R) or SOURCE (C2300R) button and set to FM.

Display



3. Adjust with the volume RV2 on TU100 so that the “FM” indication turns to “FM0” indication on the display window. But, in case of already indicated “FM0”, turn the RV2 so that put out light “0” indication and adjustment.

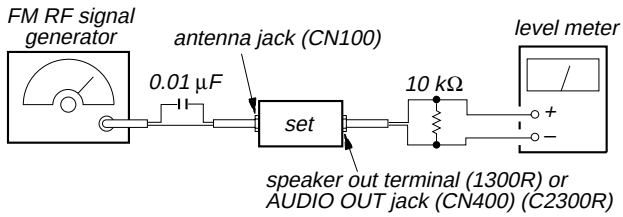
Display



Adjustment Location: See page 16.

FM Stereo Separation Adjustment

Setting:
TUNER (1300R) or SOURCE (C2300R) button: FM



Carrier frequency : 98.0 MHz
Output level : 70 dB (3.2 mV)
Mode : stereo
Modulation : main: 1 kHz, 20 kHz deviation (26.7%)
sub: 1 kHz, 20 kHz deviation (26.7%)
19 kHz pilot: 7.5 kHz deviation (10%)

Procedure:

FM Stereo signal generator output channel	Level meter connection	Level meter reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV4 on TU100 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV4 on TU100 for minimum reading.

L-CH Stereo separation: Ⓐ-Ⓑ
R-CH Stereo separation: Ⓒ-Ⓓ
The separations of both channels should be equal.

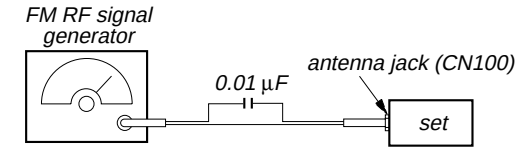
Specification: Separation more than 30 dB

Adjustment Location: See page 16.

FM RDS S-Meter Adjustment

Setting:

TUNER (1300R) or SOURCE (C2300R) button: FM



Carrier frequency : 98.00 MHz
Output level : 35 dB (56.2 µV)
Mode : mono
Modulation : no modulation

Procedure:

1. Set to the test mode. (See page 12)
2. Push the TUNER (1300R) or SOURCE (C2300R) button and set to FM.

Display

3. Push the 6 button.
4. Adjust VR100 on main board so that the display indication is "10.2".

Display

Specification: Display indication: 10.0 to 10.4

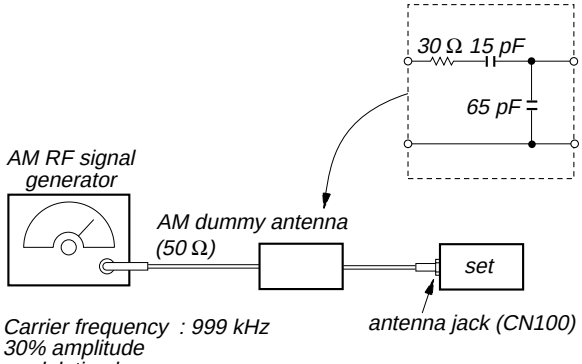
Adjustment Location: See page 16.

MW Auto Seek/Stop Level Adjustmant

Make this adjustment after "FM Auto Seek/Stop Level Adjustment".

Setting:

TUNER (1300R) or SOURCE (C2300R) button: MW

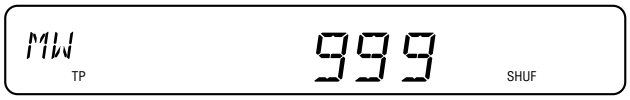


Carrier frequency : 999 kHz
30% amplitude modulation by 1 kHz signal
Output level : 33 dB (44.7 µV)

Procedure:

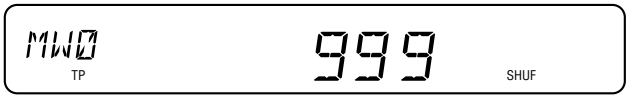
1. Set to the test mode. (See page 12)
2. Push the TUNER (1300R) or SOURCE (C2300R) button and set to FM.
3. Push the MODE button and set to MW.

Display



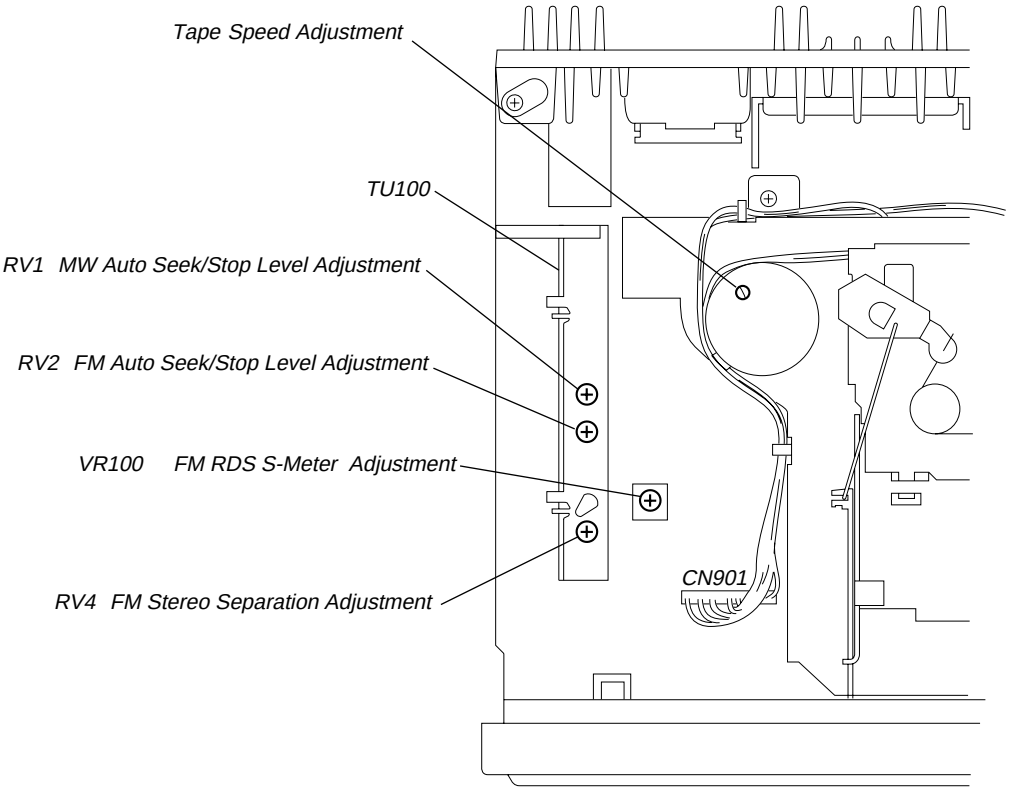
4. Adjust with the volume RV1 on TU100 so that the "MW" indication turns to "MW0" indication on the display window. But, in case of already indicated "MW0", turn the RV1 so that put out light "0" indication and adjustment.

Display



Adjustment Location: See page 16.

Adjustment Location:



SECTION 5
DIAGRAMS

5-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ▒▒▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

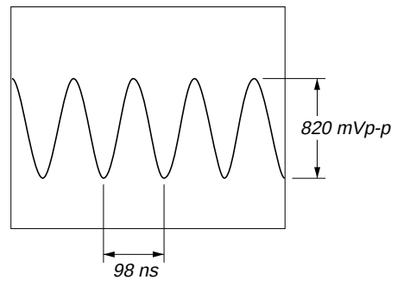
Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

Note on Schematic Diagram:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.
- B+ : B+ Line.
- ▬ : adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : MW(LW)
  ⟨⟨ ⟩⟩ : TAPE PLAYBACK
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : MW(LW)
  ⇨ : BUS AUDIO IN
  Σ : TAPE PLAYBACK
- Abbreviation

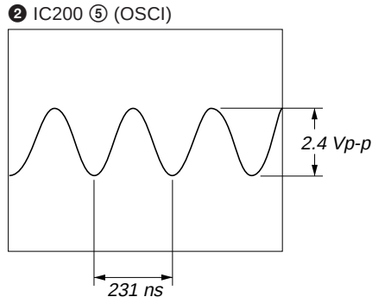
AMBER : Amber illumination type
GREEN : Green illumination type

• Waveforms
– MAIN Board –

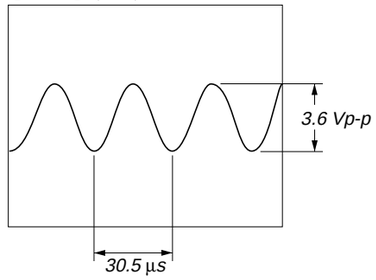
❶ IC130 ② (OSCOUT) (MW/LW)



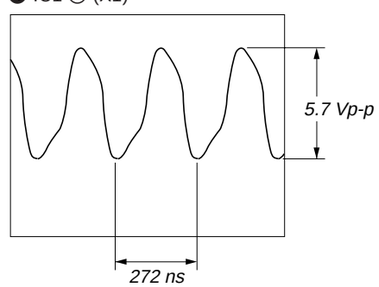
❷ IC200 ⑤ (OSCI)



❸ IC1 ⑭ (X0A)



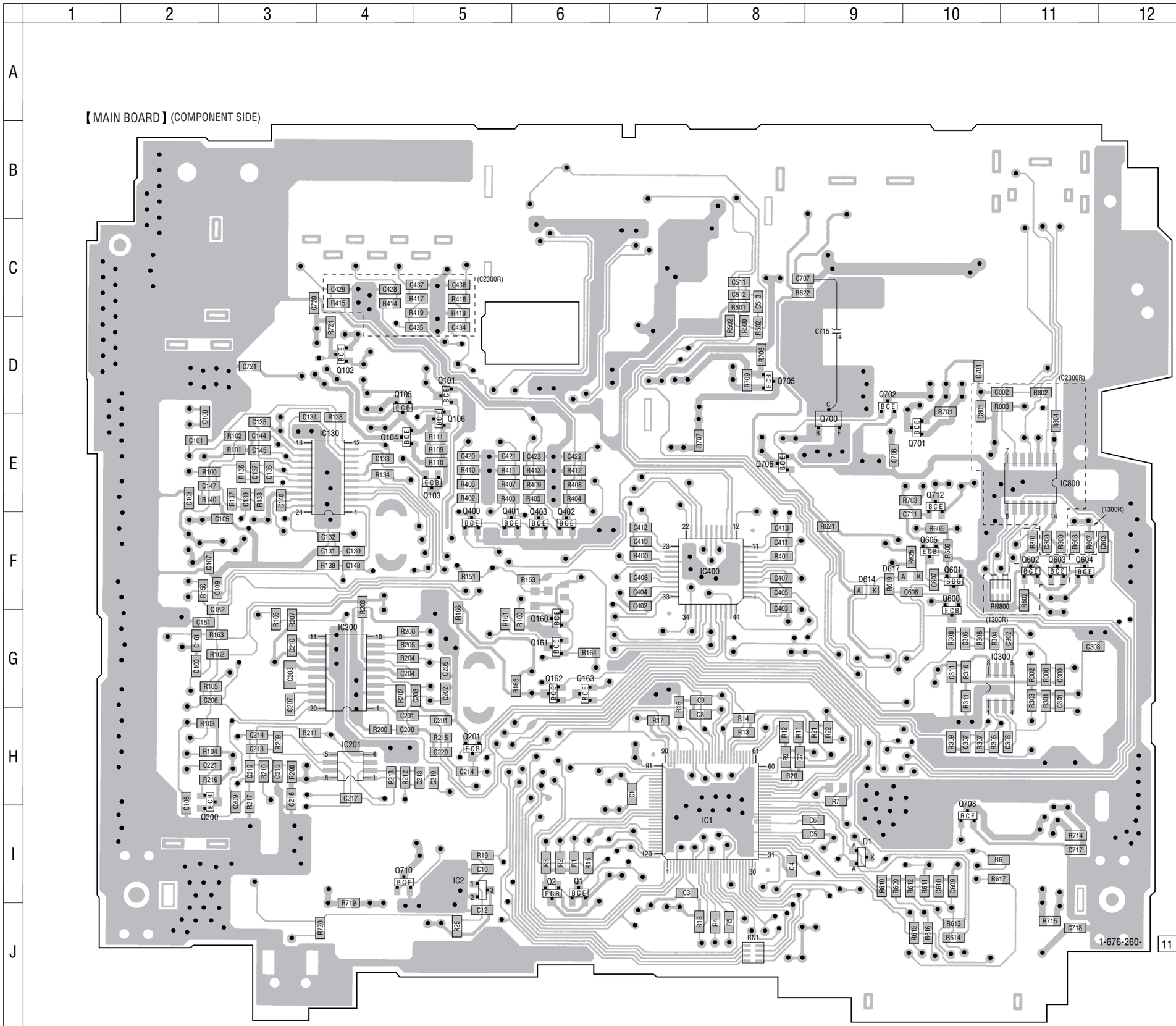
❹ IC1 ⑨③ (X1)



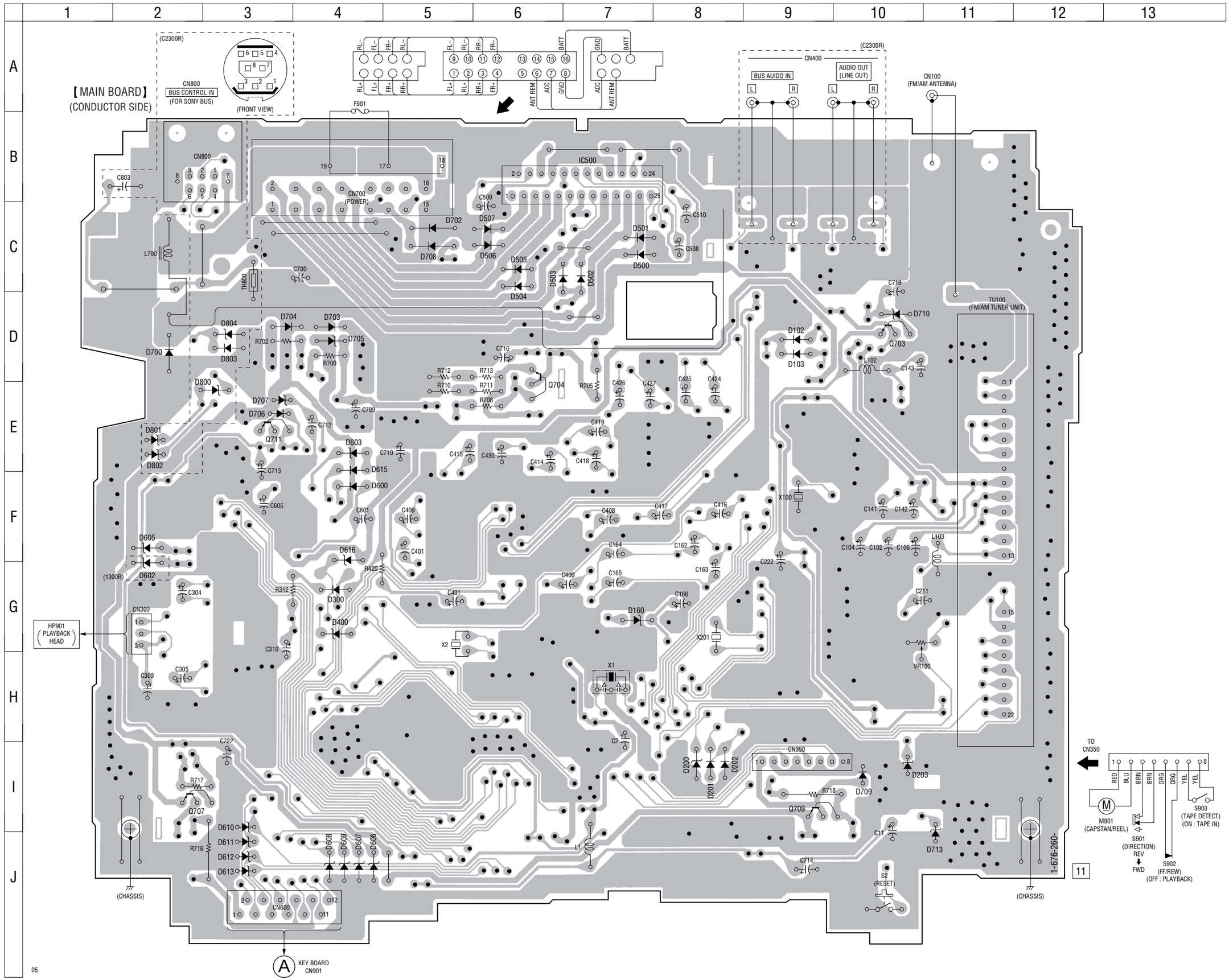
5-2. PRINTED WIRING BOARD – MAIN Board (Component Side) –

- **Semiconductor Location**

Ref. No.	Location
D1	I-9
D614	F-9
D617	F-10
IC1	I-7
IC2	I-5
IC130	E-4
IC200	G-4
IC201	H-4
IC300	G-10
IC400	F-8
IC800	E-11
Q1	I-6
Q2	I-6
Q101	D-5
Q102	D-4
Q103	E-5
Q104	E-4
Q105	D-4
Q106	E-5
Q160	G-6
Q161	G-6
Q162	G-6
Q163	G-6
Q200	H-2
Q201	H-5
Q400	F-5
Q401	F-5
Q402	F-6
Q403	F-6
Q600	G-10
Q601	F-10
Q602	F-11
Q603	F-11
Q604	F-11
Q605	F-10
Q700	E-9
Q701	E-10
Q702	D-9
Q705	D-8
Q706	E-8
Q708	I-10
Q710	I-4
Q712	E-10



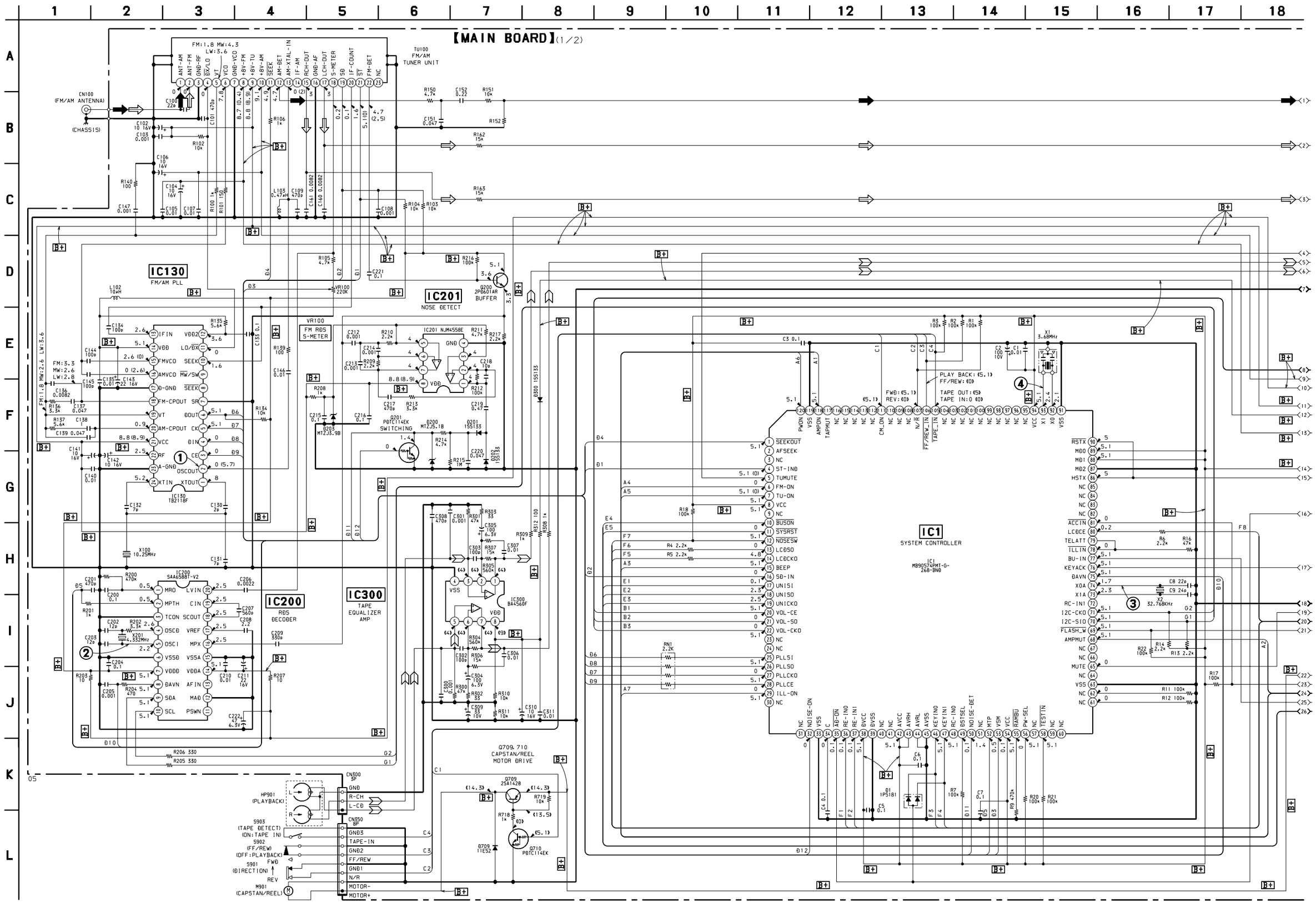
5-3. PRINTED WIRING BOARD – MAIN Board (Conductor Side) –



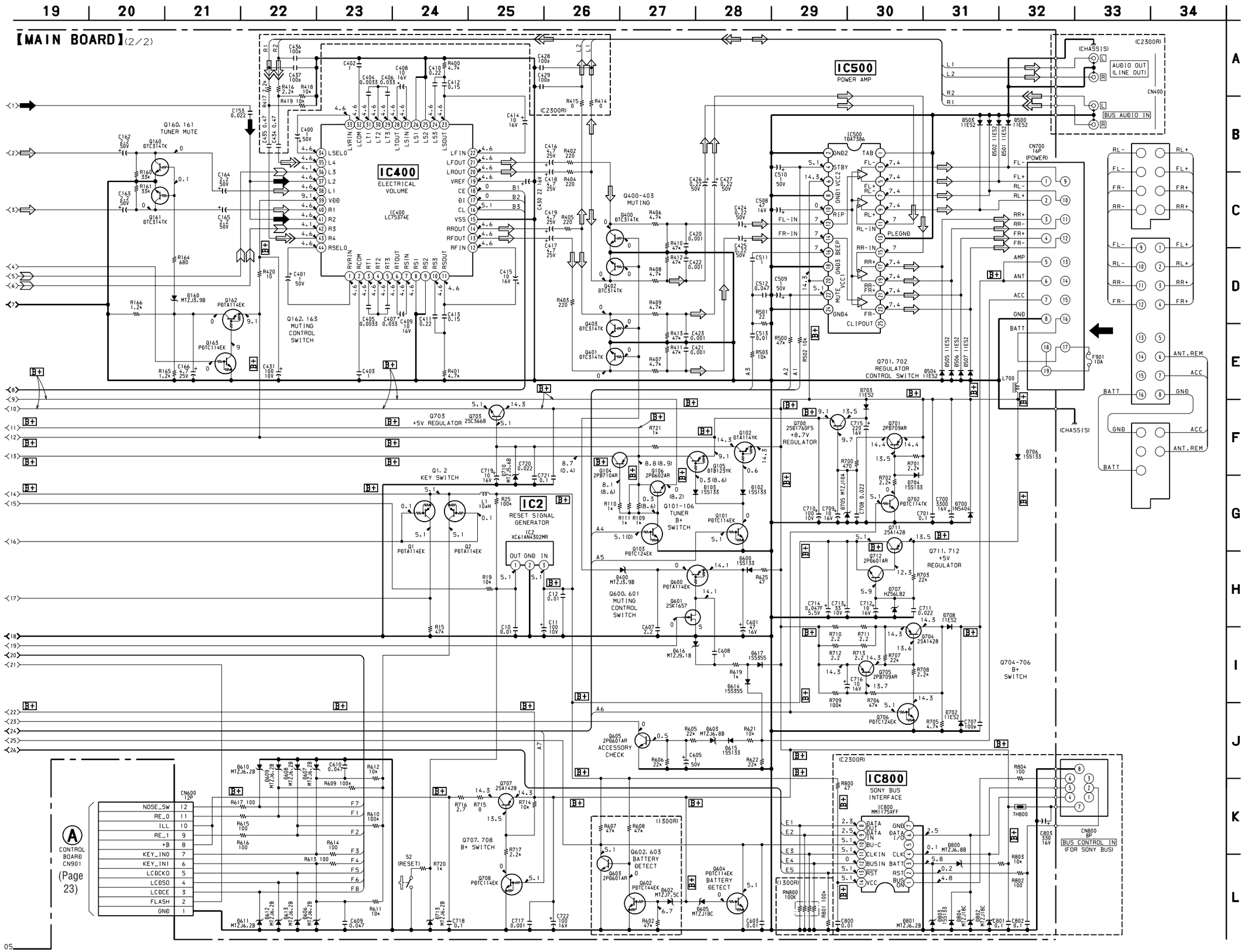
- **Semiconductor Location**

Ref. No.	Location
D102	D-9
D103	D-9
D160	G-7
D200	I-8
D201	I-8
D202	I-8
D203	I-10
D300	G-4
D400	G-4
D500	C-7
D501	C-7
D502	C-7
D503	C-6
D504	C-6
D505	C-6
D506	C-6
D507	C-6
D600	F-4
D602	F-2
D603	E-4
D605	F-2
D606	J-4
D607	J-4
D608	J-4
D609	J-4
D610	I-3
D611	J-3
D612	J-3
D613	J-3
D615	E-4
D616	F-4
D700	D-2
D702	C-5
D703	D-4
D704	D-3
D705	D-4
D706	E-3
D707	E-3
D708	C-5
D709	I-10
D710	D-10
D713	J-11
D800	E-3
D801	E-2
D802	E-2
D803	D-3
D804	D-3
IC500	B-7
Q703	D-10
Q704	E-6
Q707	I-2
Q709	I-9
Q711	E-3

5-4. SCHEMATIC DIAGRAM – MAIN Board (1/2) – • See page 17 for Waveforms. • See page 24 for IC Block Diagrams.



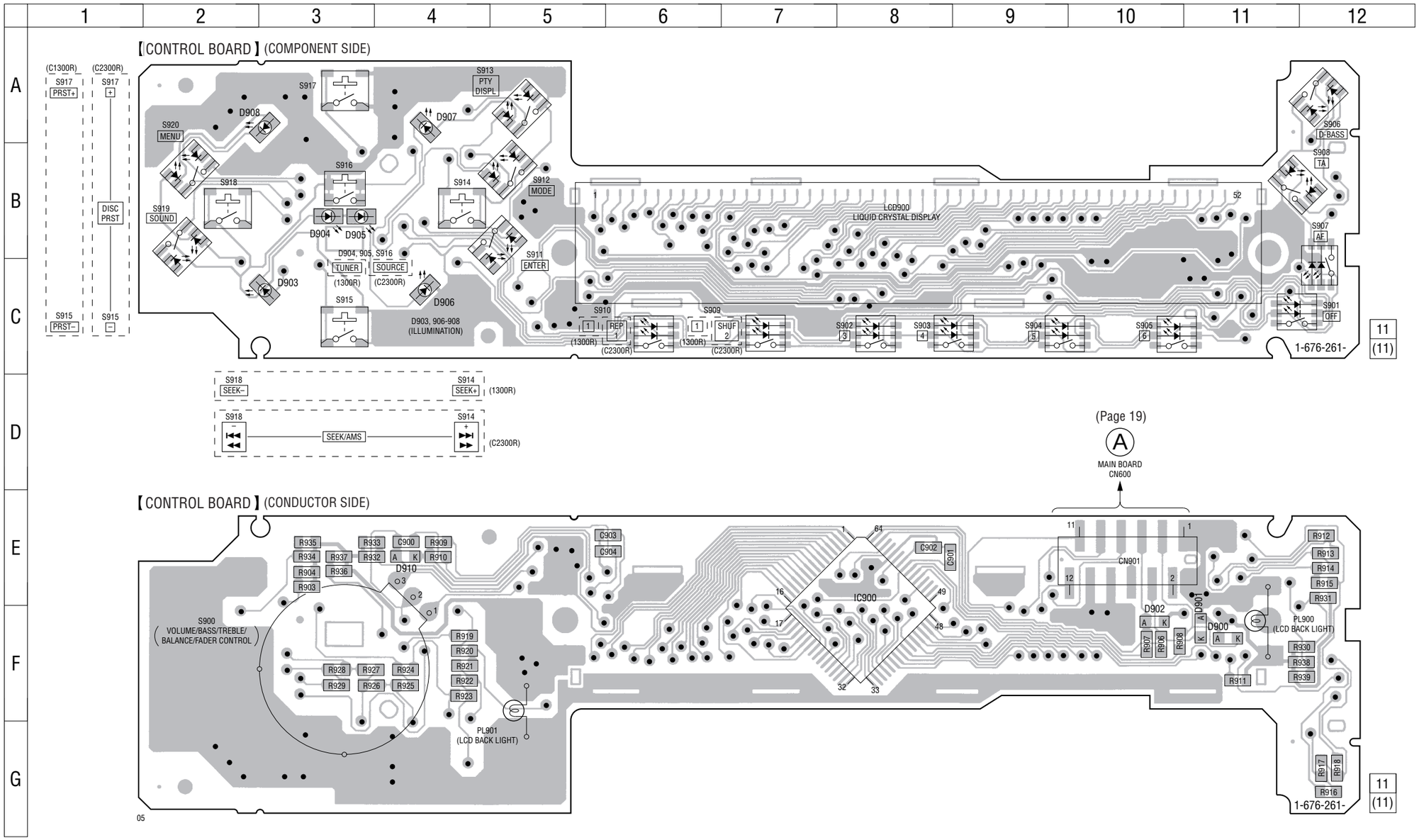
5-5. SCHEMATIC DIAGRAM – MAIN Board (2/2) – • See page 24 for IC Block Diagrams.

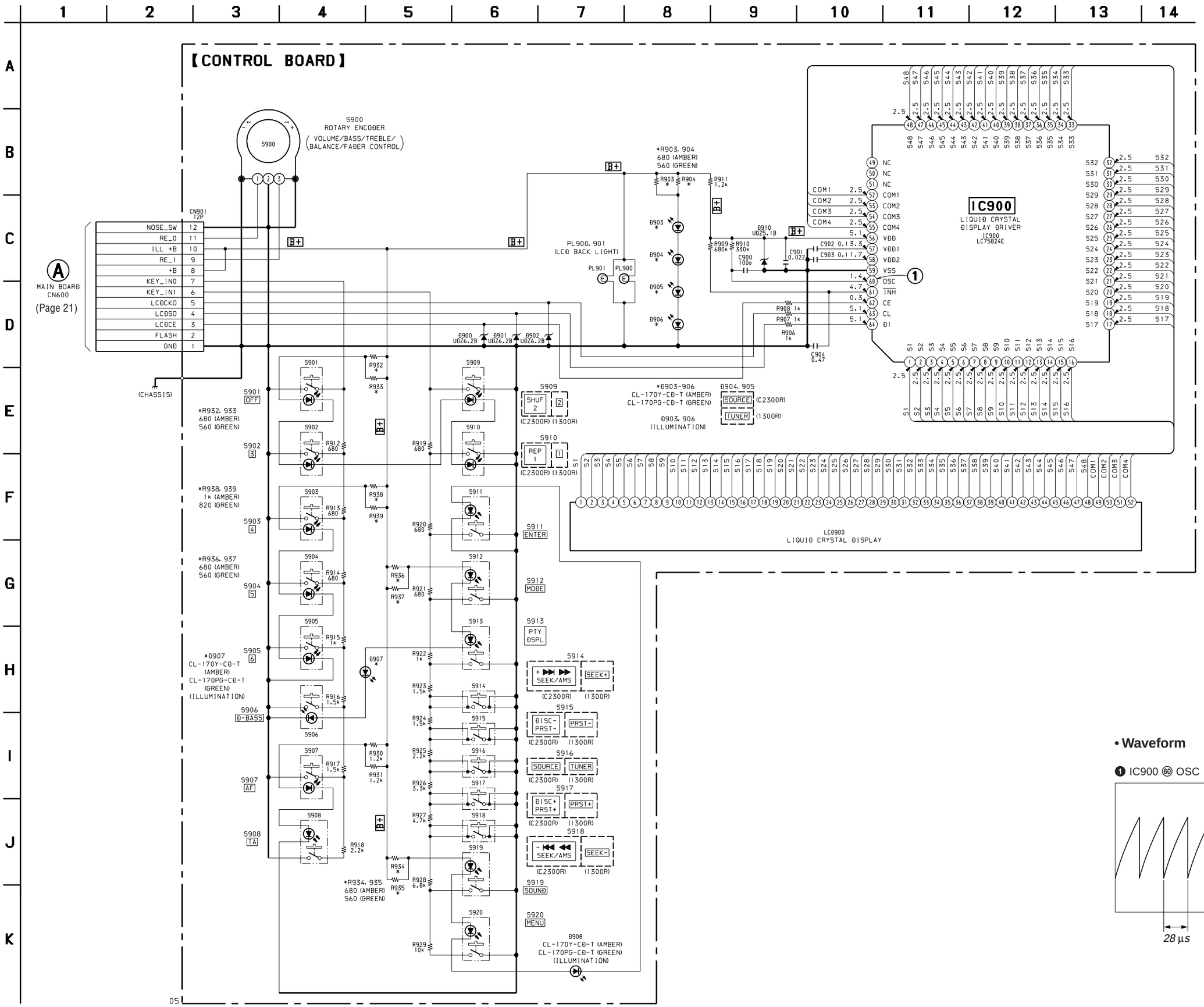


5-6. PRINTED WIRING BOARD – CONTROL Board –

- **Semiconductor Location**

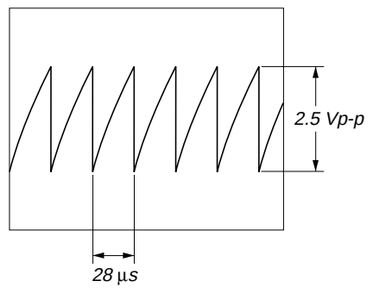
Ref. No.	Location
D900	F-11
D901	F-11
D902	F-10
D903	C-3
D904	B-3
D905	B-3
D906	C-4
D907	A-4
D908	A-3
D910	E-4
IC900	E-8





• **Waveform**

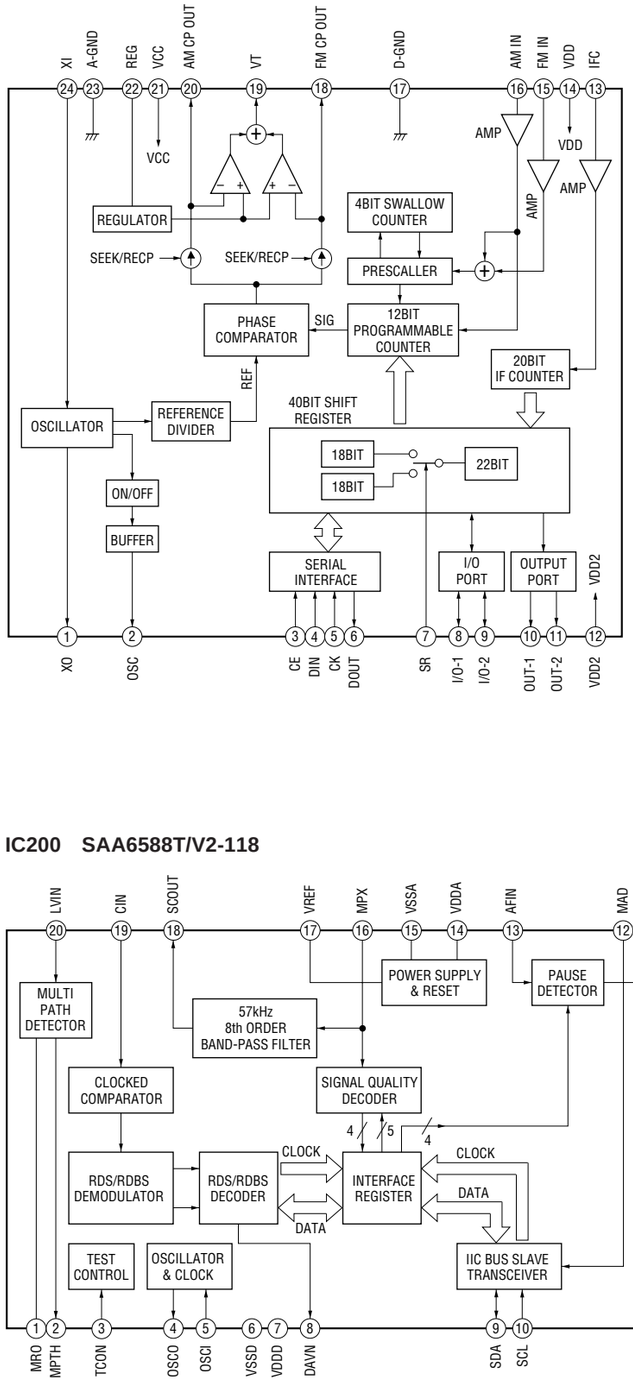
❶ IC900 ⑥⓪ OSC



• **IC Block Diagrams**

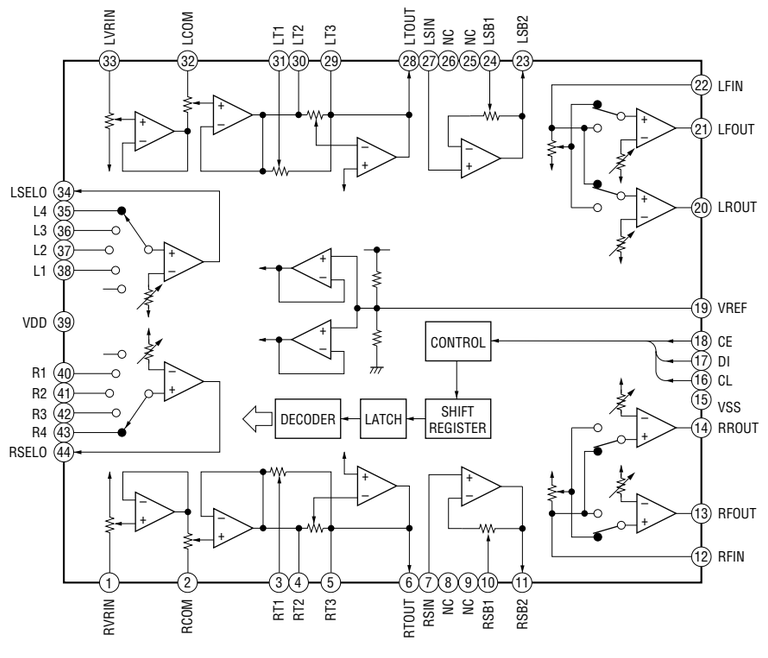
– MAIN Board –

IC130 TB2118F-EL-S

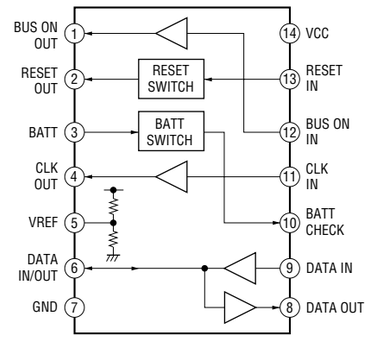


IC200 SAA6588T/V2-118

IC400 LC75374E



IC800 MM1175XFF



5-8. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC1 MB90574PMT-G-268-BND (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	$\overline{\text{SEEKOUT}}$	O	Seek control signal output to the FM/AM tuner unit (TU100) AM mode: Used for IF count output/SD output request/AGC cut at SEEK or BTM FM mode: Used for SD speed up at SEEK, BTM, or AF "L" is output at tuner off
2	AFSEEK	O	PLL low-pass filter time constant selection signal output at AF SEEK "H" is output when AF SEEK Not used (open)
3	NC	O	Not used (open)
4	ST-IND	I/O	FM stereo broadcasting detection signal input from the FM/AM tuner unit (TU100), or forced monaural control signal output to the FM/AM tuner unit (TU100) "L" is input in the FM stereo mode, or "L" is output in the forced monaural mode
5	TUMUTE	O	Muting on/off control signal output of the FM and AM tuner signal "H": muting on
6	FM-ON	O	FM system power supply on/off control signal output terminal "L": AM power on, "H": FM power on
7	TU-ON	O	Tuner system power supply on/off control signal output terminal "H": tuner power on
8	VCC	—	Power supply terminal (+5V)
9	NC	O	Not used (open)
10	$\overline{\text{BUSON}}$	O	Bus on/off control signal output to the SONY bus interface (IC800) "L": bus on Used for the XR-C2300R only
11	$\overline{\text{SYSRST}}$	O	Reset signal output to the SONY bus interface (IC800) "L": reset Used for the XR-C2300R only
12	$\overline{\text{NOSESW}}$	I	Front panel block remove/attach detection signal input terminal "L": front panel is attached
13	LCDSO	O	Serial data output to the liquid crystal display driver (IC900)
14	LCD CKO	O	Serial data transfer clock signal output to the liquid crystal display driver (IC900)
15	BEEP	O	Beep sound drive signal output terminal
16	SD-IN	I	Signal detector input from the FM/AM tuner unit (TU100) Stop level for SEEK, SCAN, etc. is determined SD is present at input of "H"
17	UNISI	I	Serial data input from the SONY bus interface (IC800) Used for the XR-C2300R only
18	UNISO	O	Serial data output to the SONY bus interface (IC800) Used for the XR-C2300R only
19	UNICKO	O	Serial data transfer clock signal output to the SONY bus interface (IC800) Used for the XR-C2300R only
20	VOL-CE	O	Chip enable signal output to the electrical volume (IC400)
21	VOL-SO	O	Serial data output to the electrical volume (IC400)
22	VOL-CKO	O	Serial data transfer clock signal output to the electrical volume (IC400)
23, 24	NC	O	Not used (open)
25	PLLSI	I	PLL serial data input from the FM/AM PLL (IC130)
26	PLLSO	O	PLL serial data output to the FM/AM PLL (IC130)
27	PLLCKO	O	PLL serial data transfer clock signal output to the FM/AM PLL (IC130)
28	PLLCE	O	PLL chip enable signal output to the FM/AM PLL (IC130) "H" active
29	ILL-ON	O	Power on/off control signal output of the illumination LED and liquid crystal display driver (IC900) "H": power on
30, 31	NC	O	Not used (open)
32	NOISE-ON	O	Discharge control signal output for the noise detection circuit "H": discharge
33	VSS	—	Ground terminal
34	C	—	Connected to coupling capacitor for the power supply
35	$\overline{\text{AD-ON}}$	O	A/D converter power control signal output terminal When the KEYACK (pin ⑯) that controls reference voltage power for key A/D conversion input is active, "L" is output from this terminal to enable the input

Pin No.	Pin Name	I/O	Description
36	RE-IN0	I	Dial pulse input of the rotary encoder (RE900) (for VOLUME/BASS/TREBLE/BALANCE/FADER control)
37	RE-IN1	I	
38	DVCC	—	Power supply terminal (+5V) (for D/A converter)
39	DVSS	—	Ground terminal (for D/A converter)
40, 41	NC	O	Not used (open)
42	AVCC	—	Power supply terminal (+5V) (for A/D converter)
43	AVRH	I	Reference voltage (+5V) input terminal (for A/D converter)
44	AVRL	I	Reference voltage (0V) input terminal (for A/D converter)
45	AVSS	—	Ground terminal (for A/D converter)
46	KEYIN0	I	Key input terminal (A/D input) (S901 to S908) OFF, 3, 4, 5, 6, D-BASS, AF, TA keys input
47	KEYIN1	I	Key input terminal (A/D input) (S909 to S920) 2 (XR-1300R), 2 SHUF (XR-C2300R), 1 (XR-1300R), 1 REP (XR-C2300R), ENTER, MODE, DSPL PTY, SEEK +/– (XR-1300R), SEEK/AMS + ▶▶I ▶▶ – I◀◀ ◀◀ (XR-C2300R), PRST +/– (XR-1300R), PRST DISC +/– (XR-C2300R), TUNER (XR-1300R), SOURCE (XR-C2300R), SOUND, MENU keys input
48	RC-IN0	O	Not used (open) Rotary remote commander key input terminal (A/D input)
49	DSTSEL	I	Destination setting terminal (fixed at “H”)
50	NOISE-DET	I	Noise level detection signal input at SEEK mode (A/D input)
51	NC	O	Not used (open)
52	MTP	I	Multi-path detection signal input from the RDS decoder (IC200)
53	VSM	I	FM and AM signal meter voltage detection input from the FM/AM tuner unit (TU100) (A/D input)
54	VCC	—	Power supply terminal (+5V)
55	$\overline{\text{RAMBU}}$	I	Internal RAM reset detection signal input terminal Input terminal to check that RAM data are not destroyed due to low voltage This checking is made within 100 msec after reset Fixed at “L” in this set
56	POW-SEL	I	Power select input terminal Fixed at “H” in this set
57	NC	O	Not used (open)
58	$\overline{\text{TESTIN}}$	I	Setting terminal for the test mode “L”: test mode, Normally: fixed at “H”
59, 60	NC	O	Not used (open)
61, 62	NC	O	Not used
63	VSS	—	Ground terminal
64	NC	O	Not used (open)
65	MUTE	O	Audio line muting on/off control signal output terminal “H”: muting on
66, 67	NC	O	Not used (open)
68	AMPMUTE	O	Muting on/off control signal output to the power amplifier (IC500) “L”: muting on
69	$\overline{\text{FLASH-W}}$	I	Internal flash memory data write mode detection signal input terminal “L”: data write mode Not used (fixed at “H” in this set)
70	I2C-SIO	I/O	Two-way data bus with the RDS decoder (IC200)
71	I2C-CKO	O	Bus clock signal output to the RDS decoder (IC200)
72	RC-IN1	O	Not used (open) Rotary remote commander shift key input terminal
73	X1A	O	Sub system clock output terminal (32.768 kHz)
74	X0A	I	Sub system clock input terminal (32.768 kHz)
75	DAVN	I	Data transmit completed detect signal input from the RDS decoder (IC200) “H” active
76	KEYACK	I	Input of acknowledge signal for the key entry Acknowledge signal is input to accept function and eject keys in the power off status On at input of “H”

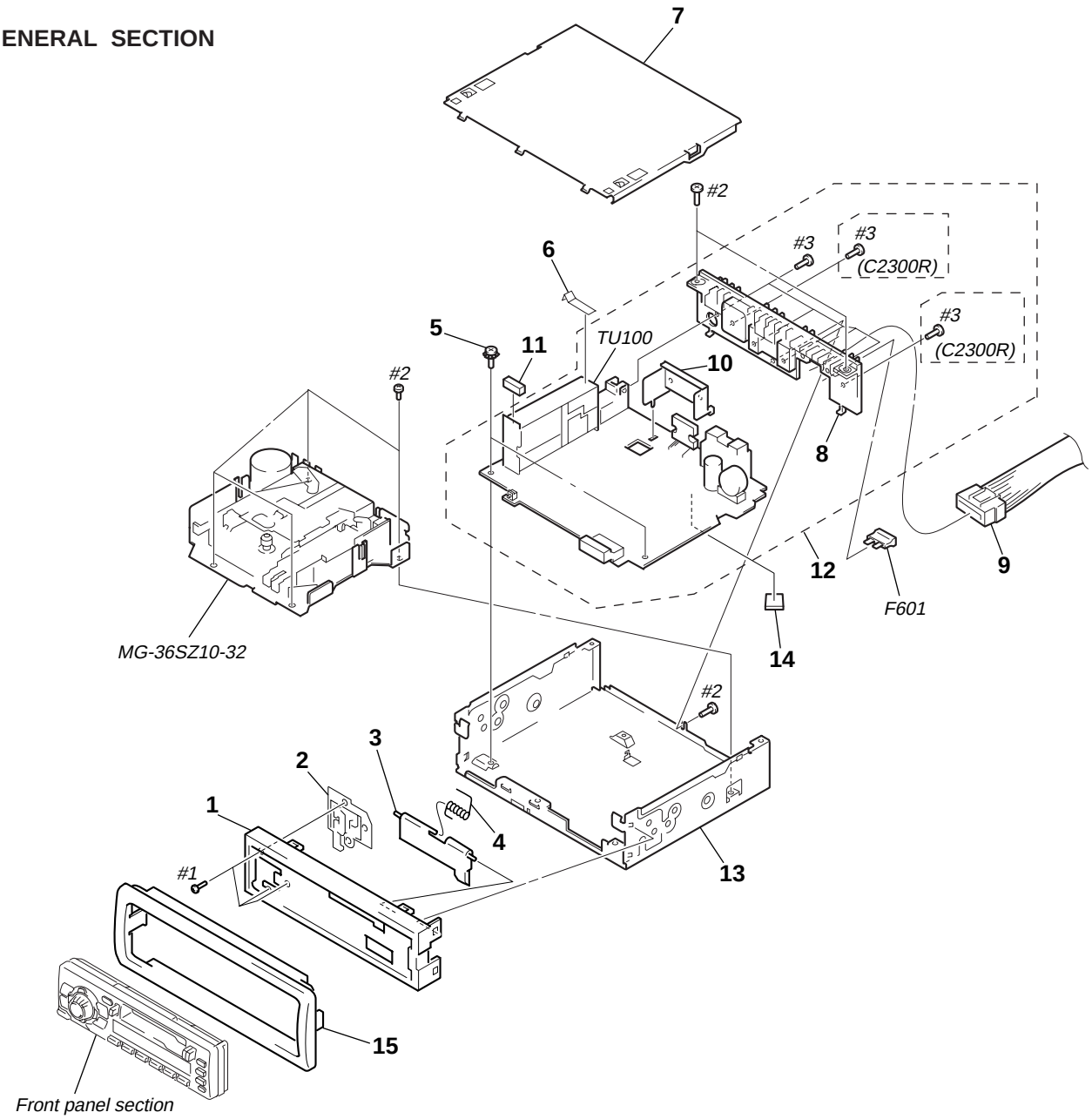
Pin No.	Pin Name	I/O	Description
77	BU-IN	I	Battery detect signal input from the SONY bus interface (IC800) and battery detect circuit "L" is input at low voltage IC800: Used for the XR-C2300R only
78	$\overline{\text{ILL IN}}$	O	Not used
79	TELATT	I	Telephone muting signal input terminal At input of "H", the signal is attenuated by –20 dB Not used
80	LCDCE	I	Chip enable signal output to the liquid crystal display driver (IC900) "H" active
81	$\overline{\text{ACC IN}}$	I	Accessory detect signal input terminal "L": accessory on
82 to 85	NC	O	Not used (open)
86	HSTX	I	Hardware standby input terminal "L": hardware standby mode Reset signal input in this set
87	MD2	I	Setting terminal for the CPU operational mode (fixed at "L" in this set)
88, 89	MD1, MD0	I	Setting terminal for the CPU operational mode (fixed at "H" in this set)
90	$\overline{\text{RSTX}}$	I	System reset signal input from the reset signal generator (IC2) and reset switch (S2) "L": reset "L" is input for several 100 msec after power on, then it changes to "H"
91	VSS	—	Ground terminal
92	X0	I	Main system clock input terminal (3.68 MHz)
93	X1	O	Main system clock output terminal (3.68 MHz)
94	VCC	—	Power supply terminal (+5V)
95 to 104	NC	O	Not used (open)
105	$\overline{\text{TAPE IN}}$	I	Tape in detection switch (S903) input terminal "L": tape in
106	$\overline{\text{FF-REW IN}}$	I	FF/REW detection switch (S902) input terminal "L": FF/REW mode
107	N/$\overline{\text{R}}$	I	Tape direction switch (S903) input terminal "L": reverse direction "H": forward direction
108 to 110	NC	O	Not used (open)
111	CM ON	O	Capstan/reel motor (M901) drive signal output terminal "H": motor on
112 to 116	NC	O	Not used (open)
117	TAPMUTE	O	Tape muting on/off control signal output terminal "H": muting on Active at ATA, FF/REW mode Not used (open)
118	AMPON	O	Standby on/off control signal output to the power amplifier (IC500) "L": standby mode, "H": amp on
119	VSS	—	Ground terminal
120	PWON	O	Main system power supply on/off control signal output terminal "H": power on

SECTION 6
EXPLODED VIEWS

NOTE:

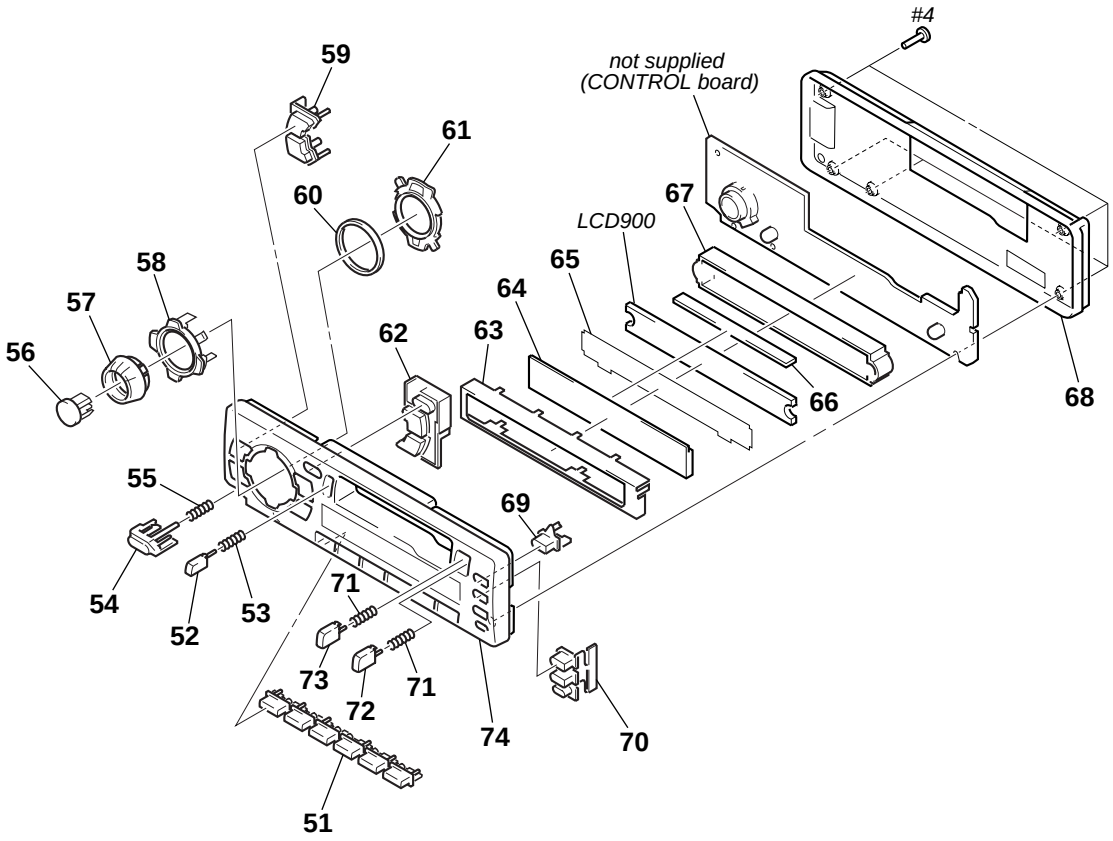
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

(1) GENERAL SECTION



Ref. No.	Part No.	Description	Remark
1	3-041-580-01	PANEL, SUB	
2	X-3367-636-1	LOCK ASSY	
3	3-041-581-01	DOOR, CASSETTE	
4	3-044-125-01	SPRING, TORSION	
5	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
6	3-029-047-01	PLATE (C), GROUND	
* 7	X-3378-167-1	COVER ASSY	
* 8	3-041-577-01	HEAT SINK (1300R)	
* 8	3-041-577-11	HEAT SINK (C2300R)	
9	1-776-527-31	CORD (WITH CONNECTOR) (ISO) (POWER)	
* 10	3-041-578-01	BRACKET (IC)	
* 11	3-046-339-01	CUSHION (U)	
* 12	A-3326-108-A	MAIN BOARD, COMPLETE (C2300R)	
* 12	A-3326-391-A	MAIN BOARD, COMPLETE (1300R)	
* 13	3-041-575-01	CHASSIS	
14	3-041-576-01	SHEET, INSULATING	
15	3-041-599-01	COLLAR	
F601	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)	
TU100	1-693-440-12	TUNER UNIT (FM/AM)	

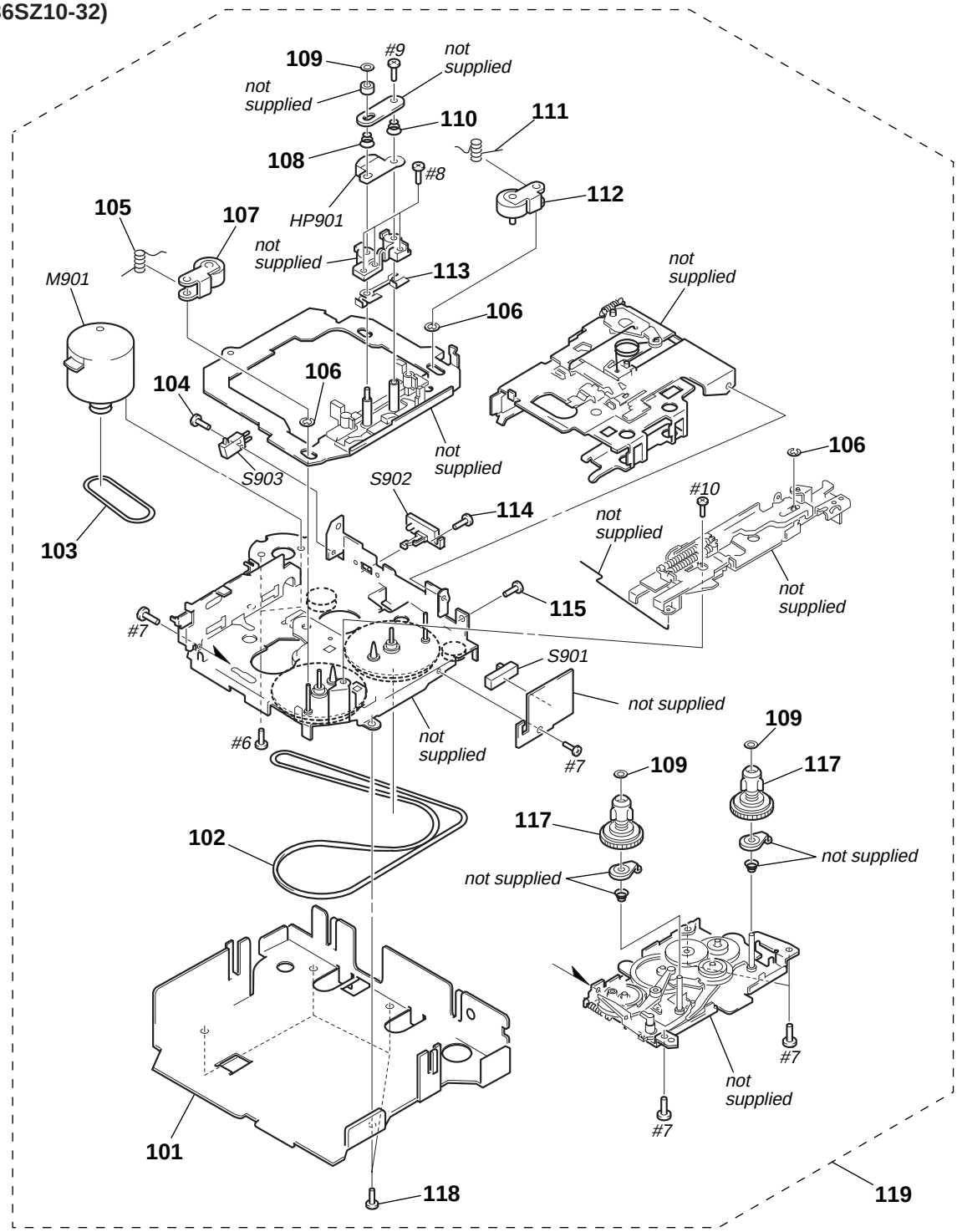
(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	3-041-597-01	BUTTON (1-6) (1. 2. 3. 4. 5. 6)	
52	3-041-582-01	BUTTON (EJECT) (⏏)	
53	3-029-327-01	SPRING (EJECT)	
54	3-041-605-01	BUTTON (RELEASE)	
55	3-932-475-01	SPRING (RELEASE)	
56	3-041-596-01	BUTTON (SOURCE) (C2300R)	
56	3-041-602-01	BUTTON (TUNER) (1300R)	
57	3-041-604-01	BUTTON (VOL)	
58	3-041-603-01	BUTTON (CROSS) (DISC +. DISC –. + ▶▶I ▶▶. – I◀◀ ◀◀) (C2300R)	
58	3-041-603-11	BUTTON (CROSS) (PRST +. PRST –. SEEK +. SEEK –) (1300R)	
59	3-041-595-01	BUTTON (S/M) (MENU. SOUND)	
* 60	3-043-247-01	CUSHION (CROSS)	
61	3-041-593-01	PLATE (RING), LIGHT GUIDE	

Ref. No.	Part No.	Description	Remark
62	3-041-594-01	BUTTON (D/M/E) (DSPL. MODE. ENTER)	
* 63	3-041-591-01	PLATE (LCD), GROUND	
* 64	3-041-589-01	PLATE, LIGHT GUIDE	
* 65	3-041-592-01	ILLUMINATOR	
66	1-694-696-11	CONDUCTOR BOARD, CONNENTION	
* 67	3-041-590-01	HOLDER (LCD)	
68	3-041-588-01	PANEL, FRONT BACK	
69	3-041-598-01	BUTTON (D-BASS)	
70	3-041-601-01	BUTTON (T/A/O) (TA. AF. OFF)	
71	3-375-372-01	SPRING (F/R)	
72	3-041-583-01	BUTTON (FF) (▶▶)	
73	3-041-584-01	BUTTON (REW) (◀◀)	
74	X-3378-615-1	PANEL SUB ASSY (C2300R)	
74	X-3378-655-1	PANEL SUB ASSY (1300R)	
LCD900	1-803-841-11	DISPLAY PANEL, LIQUID CRYSTAL	

(3) MECHANISM DECK SECTION (MG-36SZ10-32)



Ref. No.	Part No.	Description	Remark
* 101	3-041-579-01	BRACKET (MD)	
102	3-045-943-01	MAIN BELT	
103	3-045-945-01	SUB BELT (C)	
104	3-045-953-01	+MACHINE SCREW M1.7X6	
105	3-045-940-01	PINCH ARM SPG (R)	
106	3-045-950-01	E-RING (DIA. 2)	
107	3-045-890-01	PINCH ARM (R)	
108	3-045-933-01	ADJUSTER ARM SPG (B)	
109	3-045-949-01	PSW (REEL) B	
110	3-045-932-01	ADJUSTER ARM SPG (A)	
111	3-045-939-01	PINCH ARM SPG (F)	
112	3-045-891-01	PINCH ARM (F)	

Ref. No.	Part No.	Description	Remark
113	3-045-906-01	ADJUSTER SHIM (X)	
114	3-045-952-01	+MACHINE SCREW M1.7X4	
115	3-713-786-51	SCREW +P 2X3	
117	3-045-893-01	REEL SPINDLE	
118	3-046-138-01	SCREW (2.6X4) (STYLE) (CZN) +B	
119	A-3220-753-A	MECHANISM DECK ASSY (MG-36SZ10-32)	
HP901	1-500-661-11	HEAD (PLAYBACK)	
M901	1-763-507-11	MOTOR (CAPSTAN/REEL)	
S901	1-771-928-11	SWITCH (SLIDE) (DIRECTION)	
S902	1-771-926-11	SWITCH (LEAF) (FF/REW)	
S903	1-771-927-11	SWITCH (LEAF) (TAPE DETECT)	

SECTION 7
ELECTRICAL PARTS LIST

CONTROL

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Abbreviation
  AMBER : Amber illumination type
  GREEN : Green illumination type
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark
		CONTROL BOARD	
		**********	
	1-694-696-11	CONDUCTOR BOARD, CONNENTION	
*	3-041-589-01	PLATE, LIGHT GUIDE	
*	3-041-590-01	HOLDER (LCD)	
*	3-041-591-01	PLATE (LCD), GROUND	
*	3-041-592-01	ILLUMINATOR	
		< CAPACITOR >	
C900	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C901	1-163-037-11	CERAMIC CHIP 0.022uF 10%	25V
C902	1-164-004-11	CERAMIC CHIP 0.1uF 10%	25V
C903	1-164-004-11	CERAMIC CHIP 0.1uF 10%	25V
C904	1-107-823-11	CERAMIC CHIP 0.47uF 10%	16V
		< CONNECTOR >	
CN901	1-794-312-11	PIN CONNECTOR 12P	
		< DIODE >	
D900	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D901	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D902	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D903	8-719-033-13	LED CL-170Y-CD-T (ILLUMINATION)	(AMBER)
D903	8-719-033-14	LED CL-170PG-CD-T (ILLUMINATION)	(GREEN)
D904	8-719-033-13	LED CL-170Y-CD-T (1300R: TUNER/C2300R: SOURCE)	(AMBER)
D904	8-719-033-14	LED CL-170PG-CD-T (1300R: TUNER/C2300R: SOURCE)	(GREEN)
D905	8-719-033-13	LED CL-170Y-CD-T (1300R: TUNER/C2300R: SOURCE)	(AMBER)
D905	8-719-033-14	LED CL-170PG-CD-T (1300R: TUNER/C2300R: SOURCE)	(GREEN)
D906	8-719-033-13	LED CL-170Y-CD-T (ILLUMINATION)	(AMBER)
D906	8-719-033-14	LED CL-170PG-CD-T (ILLUMINATION)	(GREEN)
D907	8-719-033-13	LED CL-170Y-CD-T (ILLUMINATION)	(AMBER)
D907	8-719-033-14	LED CL-170PG-CD-T (ILLUMINATION)	(GREEN)
D908	8-719-033-13	LED CL-170Y-CD-T (ILLUMINATION)	(AMBER)
D908	8-719-033-14	LED CL-170PG-CD-T (ILLUMINATION)	(GREEN)
D910	8-719-976-89	DIODE UDZ-TE-17-5.1B	
		< IC >	
IC900	8-759-366-34	IC LC75824E	
		< LIQUID CRYSTAL DISPLAY >	
LCD900	1-803-841-11	DISPLAY PANEL, LIQUID CRYSTAL	
		< PILOT LAMP >	
PL900	1-517-534-11	LAMP, PILOT (LCD BACK LIGHT) (GREEN)	
PL900	1-517-535-11	LAMP, PILOT (LCD BACK LIGHT) (AMBER)	
PL901	1-517-534-11	LAMP, PILOT (LCD BACK LIGHT) (GREEN)	
PL901	1-517-535-11	LAMP, PILOT (LCD BACK LIGHT) (AMBER)	
		< RESISTOR >	
R903	1-216-043-00	RES, CHIP 560 5%	1/10W (GREEN)
R903	1-216-045-00	RES, CHIP 680 5%	1/10W (AMBER)
R904	1-216-043-00	RES, CHIP 560 5%	1/10W (GREEN)
R904	1-216-045-00	RES, CHIP 680 5%	1/10W (AMBER)
R906	1-216-049-11	RES, CHIP 1K 5%	1/10W
R907	1-216-049-11	RES, CHIP 1K 5%	1/10W
R908	1-216-049-11	RES, CHIP 1K 5%	1/10W
R909	1-216-045-00	METAL CHIP 680 5%	1/10W
R910	1-216-186-00	RES, CHIP 330 5%	1/8W
R911	1-216-051-00	METAL CHIP 1.2K 5%	1/10W
R912	1-216-647-11	METAL CHIP 680 0.5%	1/10W
R913	1-216-647-11	METAL CHIP 680 0.5%	1/10W
R914	1-216-647-11	METAL CHIP 680 0.5%	1/10W
R915	1-208-437-61	RES, CHIP 1K 2%	1/10W
R916	1-208-441-61	RES, CHIP 1.5K 2%	1/10W
R917	1-208-441-61	RES, CHIP 1.5K 2%	1/10W
R918	1-216-659-11	METAL CHIP 2.2K 0.5%	1/10W
R919	1-216-647-11	METAL CHIP 680 0.5%	1/10W
R920	1-216-647-11	METAL CHIP 680 0.5%	1/10W
R921	1-216-647-11	METAL CHIP 680 0.5%	1/10W
R922	1-208-437-61	RES, CHIP 1K 2%	1/10W
R923	1-208-441-61	RES, CHIP 1.5K 2%	1/10W
R924	1-208-441-61	RES, CHIP 1.5K 2%	1/10W
R925	1-216-659-11	METAL CHIP 2.2K 0.5%	1/10W

CONTROL MAIN

Ref. No.	Part No.	Description			Remark
R926	1-208-449-61	RES, CHIP	3.3K	2%	1/10W
R927	1-208-453-61	RES, CHIP	4.7K	2%	1/10W
R928	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R929	1-208-462-61	RES, CHIP	10K	2%	1/10W
R930	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R931	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R932	1-216-043-00	RES, CHIP	560	5%	1/10W (GREEN)
R932	1-216-045-00	RES, CHIP	680	5%	1/10W (AMBER)
R933	1-216-043-00	RES, CHIP	560	5%	1/10W (GREEN)
R933	1-216-045-00	RES, CHIP	680	5%	1/10W (AMBER)
R934	1-216-043-00	RES, CHIP	560	5%	1/10W (GREEN)
R934	1-216-045-00	RES, CHIP	680	5%	1/10W (AMBER)
R935	1-216-043-00	RES, CHIP	560	5%	1/10W (GREEN)
R935	1-216-045-00	RES, CHIP	680	5%	1/10W (AMBER)
R936	1-216-043-00	RES, CHIP	560	5%	1/10W (GREEN)
R936	1-216-045-00	RES, CHIP	680	5%	1/10W (AMBER)
R937	1-216-043-00	RES, CHIP	560	5%	1/10W (GREEN)
R937	1-216-045-00	RES, CHIP	680	5%	1/10W (AMBER)
R938	1-216-047-00	RES, CHIP	820	5%	1/10W (GREEN)
R938	1-216-049-11	RES, CHIP	1K	5%	1/10W (AMBER)
R939	1-216-047-00	RES, CHIP	820	5%	1/10W (GREEN)
R939	1-216-049-11	RES, CHIP	1K	5%	1/10W (AMBER)
		< SWITCH >			
S900	1-475-014-11	ENCODER, ROTARY (VOLUME/BASS/TREBLE/ BALANCE/FADER CONTROL)			
S901	1-771-882-21	SWITCH, TACTILE (WITH LED) (OFF) (AMBER)			
S901	1-771-609-11	SWITCH, TACT (WITH LED) (OFF) (GREEN)			
S902	1-771-882-21	SWITCH, TACTILE (WITH LED) (3) (AMBER)			
S902	1-771-609-11	SWITCH, TACT (WITH LED) (3) (GREEN)			
S903	1-771-882-21	SWITCH, TACTILE (WITH LED) (4) (AMBER)			
S903	1-771-609-11	SWITCH, TACT (WITH LED) (4) (GREEN)			
S904	1-771-882-21	SWITCH, TACTILE (WITH LED) (5) (AMBER)			
S904	1-771-609-11	SWITCH, TACT (WITH LED) (5) (GREEN)			
S905	1-771-882-21	SWITCH, TACTILE (WITH LED) (6) (AMBER)			
S905	1-771-609-11	SWITCH, TACT (WITH LED) (6) (GREEN)			
S906	1-762-737-21	SWITCH, KEY BOARD (LED) (D-BASS)			
S907	1-771-882-21	SWITCH, TACTILE (WITH LED) (AF) (AMBER)			
S907	1-771-609-11	SWITCH, TACT (WITH LED) (AF) (GREEN)			
S908	1-762-617-21	SWITCH, KEY BOARD (WITH LED) (TA) (AMBER)			
S908	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (TA) (GREEN)			
S909	1-771-882-21	SWITCH, TACTILE (WITH LED) (1300R: 2/C2300R: 2 SHUF) (AMBER)			
S909	1-771-609-11	SWITCH, TACT (WITH LED) (1300R:2/C2300R:2 SHUF) (GREEN)			
S910	1-771-882-21	SWITCH, TACTILE (WITH LED) (1300R: 1/C2300R: 1 REP) (AMBER)			
S910	1-771-609-11	SWITCH, TACT (WITH LED) (1300R:1/C2300R REP) (GREEN)			
S911	1-762-617-21	SWITCH, KEY BOARD (WITH LED) (ENTER) (AMBER)			
S911	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (ENTER) (GREEN)			
S912	1-762-617-21	SWITCH, KEY BOARD (WITH LED) (MODE) (AMBER)			
S912	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (MODE) (GREEN)			
S913	1-762-617-21	SWITCH, KEY BOARD (WITH LED) (DSPL, PTY) (AMBER)			
S913	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (DSPL, PTY) (GREEN)			
S914	1-771-027-21	SWITCH, KEYBOARD (WITH LED) (1300R: SEEK +/C2300R: + ▶▶I ▶▶, SEEK/AMS)			
S915	1-771-027-21	SWITCH, KEYBOARD (WITH LED) (1300R: PRST –/C2300R: DISC –, PRST –)			
S916	1-771-884-21	SWITCH, TACTILE (WITH LED) (1300R: TUNER/C2300R: SOURCE)			
S917	1-771-027-21	SWITCH, KEYBOARD (WITH LED) (1300R: PRST +/C2300R: DISC +, PRST +)			
S918	1-771-027-21	SWITCH, KEYBOARD (WITH LED) (1300R: SEEK -/C2300R: – I◀◀ ◀◀, SEEK/AMS)			
S919	1-762-617-21	SWITCH, KEY BOARD (WITH LED) (SOUND) (AMBER)			
S919	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (SOUND) (GREEN)			
S920	1-762-617-21	SWITCH, KEY BOARD (WITH LED) (MENU) (AMBER)			
S920	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (MENU) (GREEN)			

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*	A-3326-108-A	MAIN BOARD, COMPLETE (C2300R)			
*	A-3326-391-A	MAIN BOARD, COMPLETE (1300R)			
		**********			
*	3-041-577-01	HEAT SINK (1300R)			
*	3-041-577-11	HEAT SINK (C2300R)			
*	3-041-578-01	BRACKET (IC)			
	7-685-794-09	SCREW +PTT 2.6X10 (S)			
		< CAPACITOR >			
C1	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C2	1-124-584-00	ELECT	100uF	20%	10V
C3	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C4	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C5	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C6	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C7	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C8	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C9	1-163-102-00	CERAMIC CHIP	24PF	5%	50V
C10	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C11	1-124-584-00	ELECT	100uF	20%	10V
C12	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C100	1-163-235-11	CERAMIC CHIP	22PF	5%	50V

Ref. No.	Part No.	Description			Remark
C101	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C102	1-126-157-11	ELECT	10uF	20%	16V
C103	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C104	1-126-157-11	ELECT	10uF	20%	16V
C105	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C106	1-126-157-11	ELECT	10uF	20%	16V
C107	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C108	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C109	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C130	1-163-085-00	CERAMIC CHIP	2PF	0.25PF	50V
C131	1-163-224-11	CERAMIC CHIP	7PF	0.5PF	50V
C132	1-163-224-11	CERAMIC CHIP	7PF	0.5PF	50V
C133	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C134	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C135	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C136	1-163-020-00	CERAMIC CHIP	0.0082uF	10%	50V
C137	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C138	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C139	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C140	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C141	1-126-157-11	ELECT	10uF	20%	16V
C142	1-126-157-11	ELECT	10uF	20%	16V
C143	1-124-234-00	ELECT	22uF	20%	16V
C144	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C145	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C146	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C147	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C151	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C152	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C153	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C160	1-163-020-00	CERAMIC CHIP	0.0082uF	10%	50V
C161	1-163-020-00	CERAMIC CHIP	0.0082uF	10%	50V
C162	1-124-257-00	ELECT	2.2uF	20%	50V
C163	1-124-257-00	ELECT	2.2uF	20%	50V
C164	1-124-257-00	ELECT	2.2uF	20%	50V
C165	1-124-257-00	ELECT	2.2uF	20%	50V
C166	1-126-163-11	ELECT	4.7uF	20%	50V
C200	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C201	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C202	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C203	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C204	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C205	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C206	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C207	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C208	1-115-565-11	CERAMIC CHIP	2.2uF	10%	10V
C209	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C210	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C211	1-124-234-00	ELECT	22uF	20%	16V
C212	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C213	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C214	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C215	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C216	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C217	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C218	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C219	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C220	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C221	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C222	1-126-154-11	ELECT	47uF	20%	6.3V
C300	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C301	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C302	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C303	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C304	1-124-584-00	ELECT	100uF	20%	10V
C305	1-124-584-00	ELECT	100uF	20%	10V
C306	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C307	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C308	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C309	1-124-229-00	ELECT	33uF	20%	10V
C310	1-126-157-11	ELECT	10uF	20%	16V
C311	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C400	1-104-942-11	ELECT	1uF	20%	50V
C401	1-104-942-11	ELECT	1uF	20%	50V
C402	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C403	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C404	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C405	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C406	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C407	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C408	1-126-157-11	ELECT	10uF	20%	16V
C409	1-126-157-11	ELECT	10uF	20%	16V
C410	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C411	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C412	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C413	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C414	1-126-157-11	ELECT	10uF	20%	16V
C415	1-126-157-11	ELECT	10uF	20%	16V
C416	1-126-572-11	ELECT	4.7uF	20%	35V
C417	1-126-572-11	ELECT	4.7uF	20%	35V
C418	1-126-572-11	ELECT	4.7uF	20%	35V
C419	1-126-572-11	ELECT	4.7uF	20%	35V
C420	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C421	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C422	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C423	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C424	1-124-464-11	ELECT	0.22uF	20%	50V
C425	1-124-464-11	ELECT	0.22uF	20%	50V
C426	1-124-464-11	ELECT	0.22uF	20%	50V
C427	1-124-464-11	ELECT	0.22uF	20%	50V
C428	1-163-251-11	CERAMIC CHIP	100PF	5%	50V (C2300R)
C429	1-163-251-11	CERAMIC CHIP	100PF	5%	50V (C2300R)
C430	1-124-234-00	ELECT	22uF	20%	16V
C431	1-124-584-00	ELECT	100uF	20%	10V
C434	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V (C2300R)
C435	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V (C2300R)
C436	1-163-251-11	CERAMIC CHIP	100PF	5%	50V (C2300R)
C437	1-163-251-11	CERAMIC CHIP	100PF	5%	50V (C2300R)
C508	1-124-589-11	ELECT	47uF	20%	16V
C509	1-104-942-11	ELECT	1uF	20%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C510	1-104-942-11	ELECT	1uF	20%	50V
C511	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C512	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C513	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C601	1-124-589-11	ELECT	47uF	20%	16V
C603	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C605	1-104-942-11	ELECT	1uF	20%	50V
C607	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C608	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C609	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C610	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C700	1-126-936-11	ELECT	3300uF	20%	16V
C701	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C707	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C708	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C709	1-126-157-11	ELECT	10uF	20%	16V
C710	1-124-584-00	ELECT	100uF	20%	10V
C711	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C712	1-126-157-11	ELECT	10uF	20%	16V
C713	1-124-229-00	ELECT	33uF	20%	10V
C714	1-125-701-11	DOUBLE LAYER	0.047F		5.5V
C715	1-128-499-11	ELECT	220uF	20%	16V
C716	1-126-157-11	ELECT	10uF	20%	16V
C717	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C718	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C719	1-126-157-11	ELECT	10uF	20%	16V
C720	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C721	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C722	1-119-774-11	ELECT	100uF	20%	16V
C800	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C801	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C802	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C803	1-126-940-11	ELECT	330uF	20%	25V
		< CONNECTOR >			
CN100	1-764-808-21	JACK (ANT) (FM/AM ANTENNA)			
* CN300	1-564-705-11	PIN, CONNECTOR (PC BOARD) 3P			
* CN350	1-573-486-11	PIN, CONNECTOR (PC BOARD) 8P			
CN400	1-774-699-12	JACK, PIN 4P (BUS AUDIO IN, AUDIO OUT)			(C2300R)
CN600	1-764-423-11	PIN, CONNECTOR 12P			
CN700	1-774-701-11	PIN, CONNECTOR 16P (POWER)			
CN800	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)			(C2300R)
		< DIODE >			
D1	8-719-066-10	DIODE	1PS181-115		
D102	8-719-991-33	DIODE	1SS133T-77		
D103	8-719-991-33	DIODE	1SS133T-77		
D160	8-719-109-72	DIODE	MTZJ-T-77-3.9B		
D200	8-719-109-85	DIODE	MTZJ-T-77-5.1B		
D201	8-719-991-33	DIODE	1SS133T-77		
D202	8-719-991-33	DIODE	1SS133T-77		
D203	8-719-109-72	DIODE	MTZJ-T-77-3.9B		
D300	8-719-991-33	DIODE	1SS133T-77		
D400	8-719-109-72	DIODE	MTZJ-T-77-3.9B		
D500	8-719-200-82	DIODE	11ES2-TA1B		

Ref. No.	Part No.	Description		Remark
D501	8-719-200-82	DIODE	11ES2-TA1B	
D502	8-719-200-82	DIODE	11ES2-TA1B	
D503	8-719-200-82	DIODE	11ES2-TA1B	
D504	8-719-200-82	DIODE	11ES2-TA1B	
D505	8-719-200-82	DIODE	11ES2-TA1B	
D506	8-719-200-82	DIODE	11ES2-TA1B	
D507	8-719-200-82	DIODE	11ES2-TA1B	
D600	8-719-991-33	DIODE	1SS133T-77	
D602	8-719-110-03	DIODE	MTZJ-T-77-7.5C (C1300R)	
D603	8-719-109-97	DIODE	MTZJ-T-77-6.8B	
D605	8-719-922-03	DIODE	MTZJ-T-77-18C	
D606	8-719-109-93	DIODE	MTZJ-T-77-6.2B	
D607	8-719-109-93	DIODE	MTZJ-T-77-6.2B	
D608	8-719-109-93	DIODE	MTZJ-T-77-6.2B	
D609	8-719-109-93	DIODE	MTZJ-T-77-6.2B	
D610	8-719-109-93	DIODE	MTZJ-T-77-6.2B	
D611	8-719-109-93	DIODE	MTZJ-T-77-6.2B	
D612	8-719-109-93	DIODE	MTZJ-T-77-6.2B	
D613	8-719-109-93	DIODE	MTZJ-T-77-6.2B	
D614	8-719-988-61	DIODE	1SS355TE-17	
D615	8-719-991-33	DIODE	1SS133T-77	
D616	8-719-929-15	DIODE	HZS9.1NB2	
D617	8-719-988-61	DIODE	1SS355TE-17	
D700	8-719-049-38	DIODE	1N5404TU	
D702	8-719-200-82	DIODE	11ES2-TA1B	
D703	8-719-200-82	DIODE	11ES2-TA1B	
D704	8-719-991-33	DIODE	1SS133T-77	
D705	8-719-048-54	DIODE	MTZJ-T-77-10A	
D706	8-719-991-33	DIODE	1SS133T-77	
D707	8-719-935-40	DIODE	HZS6B2LTD	
D708	8-719-200-82	DIODE	11ES2-TA1B	
D709	8-719-200-82	DIODE	11ES2-TA1B	
D710	8-719-109-89	DIODE	MTZJ-T-77-5.6B	
D713	8-719-109-93	DIODE	MTZJ-T-77-6.2B	
D800	8-719-109-97	DIODE	MTZJ-T-77-6.8B (C2300R)	
D801	8-719-109-93	DIODE	MTZJ-T-77-6.2B (C2300R)	
D802	8-719-922-03	DIODE	MTZJ-T-77-18C (C2300R)	
D803	8-719-991-33	DIODE	1SS133T-77 (C2300R)	
D804	8-719-922-03	DIODE	MTZJ-T-77-18C (C2300R)	
		< IC >		
IC1	8-759-654-48	IC	MB90574PMT-G-268-BND	
IC2	8-759-574-61	IC	XC61AN4302MR	
IC130	8-759-586-59	IC	TB2118F-EL-S	
IC200	8-759-650-68	IC	SAA6588T/V2-118	
IC201	8-759-331-72	IC	NJM4558E-D (TE2)	
IC300	8-759-924-46	IC	BA4560F-T1	
IC400	8-759-487-82	IC	LC75374E	
IC500	8-759-486-44	IC	TDA7386	
IC800	8-759-096-16	IC	MM1175XFF (C2300R)	
		< COIL >		
L1	1-410-509-11	INDUCTOR	10uH	
L102	1-410-509-11	INDUCTOR	10uH	
L103	1-410-750-41	INDUCTOR	0.47uH	
L700	1-419-476-11	COIL, CHOKE		

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q1	8-729-043-32	TRANSISTOR	PDTA114EK-115		
Q2	8-729-043-32	TRANSISTOR	PDTA114EK-115		
Q101	8-729-043-27	TRANSISTOR	PDTC114EK-115		
Q102	8-729-901-46	TRANSISTOR	DTA114YK-T146		
Q103	8-729-043-28	TRANSISTOR	PDTC124EK-115		
Q104	8-729-049-85	TRANSISTOR	2PB710AR-115		
Q105	8-729-904-63	TRANSISTOR	DTB123YK-T-146		
Q106	8-729-049-86	TRANSISTOR	2PD602AR-115		
Q160	8-729-920-21	TRANSISTOR	DTC314TK-T-146		
Q161	8-729-920-21	TRANSISTOR	DTC314TK-T-146		
Q162	8-729-043-32	TRANSISTOR	PDTA114EK-115		
Q163	8-729-043-27	TRANSISTOR	PDTC114EK-115		
Q200	8-729-422-33	TRANSISTOR	2PD601AR-115		
Q201	8-729-043-27	TRANSISTOR	PDTC114EK-115		
Q400	8-729-920-21	TRANSISTOR	DTC314TK-T-146		
Q401	8-729-920-21	TRANSISTOR	DTC314TK-T-146		
Q402	8-729-920-21	TRANSISTOR	DTC314TK-T-146		
Q403	8-729-920-21	TRANSISTOR	DTC314TK-T-146		
Q600	8-729-043-32	TRANSISTOR	PDTA114EK-115		
Q601	8-729-021-94	FET	2SK1657-T1B		
Q602	8-729-043-29	TRANSISTOR	PDTC144EK-115 (1300R)		
Q603	8-729-422-33	TRANSISTOR	2PD601AR-115 (1300R)		
Q604	8-729-043-27	TRANSISTOR	PDTC114EK-115		
Q605	8-729-422-33	TRANSISTOR	2PD601AR-115		
Q700	8-729-921-48	TRANSISTOR	2SD1760F5-TRPQR		
Q701	8-729-216-22	TRANSISTOR	2PB709AR-115		
Q702	8-729-043-30	TRANSISTOR	PDTC114TK-115		
Q703	8-729-205-96	TRANSISTOR	2SC3668-OY-TPE2		
Q704	8-729-205-95	TRANSISTOR	2SA1428-OY-TPF2		
Q705	8-729-216-22	TRANSISTOR	2PB709AR-115		
Q706	8-729-043-28	TRANSISTOR	PDTC124EK-115		
Q707	8-729-205-95	TRANSISTOR	2SA1428-OY-TPF2		
Q708	8-729-043-27	TRANSISTOR	PDTC114EK-115		
Q709	8-729-205-95	TRANSISTOR	2SA1428-OY-TPF2		
Q710	8-729-043-27	TRANSISTOR	PDTC114EK-115		
Q711	8-729-205-95	TRANSISTOR	2SA1428-OY-TPF2		
Q712	8-729-422-33	TRANSISTOR	2PD601AR-115		
		< RESISTOR >			
R1	1-216-097-00	RES, CHIP	100K	5%	1/10W
R2	1-216-097-00	RES, CHIP	100K	5%	1/10W
R3	1-216-097-00	RES, CHIP	100K	5%	1/10W
R4	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R5	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R6	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R7	1-216-097-00	RES, CHIP	100K	5%	1/10W
R9	1-216-113-00	METAL CHIP	470K	5%	1/10W
R11	1-216-097-00	RES, CHIP	100K	5%	1/10W
R12	1-216-097-00	RES, CHIP	100K	5%	1/10W
R13	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R14	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R15	1-216-089-00	RES, CHIP	47K	5%	1/10W
R16	1-216-089-00	RES, CHIP	47K	5%	1/10W
R17	1-216-097-00	RES, CHIP	100K	5%	1/10W
R18	1-216-097-00	RES, CHIP	100K	5%	1/10W
R19	1-216-073-00	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R20	1-216-097-00	RES, CHIP	100K	5%	1/10W
R21	1-216-097-00	RES, CHIP	100K	5%	1/10W
R22	1-216-097-00	RES, CHIP	100K	5%	1/10W
R25	1-216-097-00	RES, CHIP	100K	5%	1/10W
R100	1-216-049-11	RES, CHIP	1K	5%	1/10W
R101	1-216-029-00	METAL CHIP	150	5%	1/10W
R102	1-216-073-00	METAL CHIP	10K	5%	1/10W
R103	1-216-073-00	METAL CHIP	10K	5%	1/10W
R104	1-216-073-00	METAL CHIP	10K	5%	1/10W
R105	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R106	1-216-049-11	RES, CHIP	1K	5%	1/10W
R109	1-216-049-11	RES, CHIP	1K	5%	1/10W
R110	1-216-049-11	RES, CHIP	1K	5%	1/10W
R111	1-216-049-11	RES,CHIP	1K	5%	1/10W
R134	1-216-073-00	METAL CHIP	10K	5%	1/10W
R135	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R136	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R137	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R139	1-216-025-00	RES, CHIP	100	5%	1/10W
R140	1-216-025-00	RES, CHIP	100	5%	1/10W
R150	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R151	1-216-073-00	METAL CHIP	10K	5%	1/10W
R160	1-216-085-00	METAL CHIP	33K	5%	1/10W
R161	1-216-085-00	METAL CHIP	33K	5%	1/10W
R162	1-216-077-00	RES, CHIP	15K	5%	1/10W
R163	1-216-077-00	RES, CHIP	15K	5%	1/10W
R164	1-216-045-00	METAL CHIP	680	5%	1/10W
R165	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R166	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R200	1-216-113-00	METAL CHIP	470K	5%	1/10W
R201	1-216-049-11	RES, CHIP	1K	5%	1/10W
R202	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R203	1-216-001-00	METAL CHIP	10	5%	1/10W
R204	1-216-041-00	METAL CHIP	470	5%	1/10W
R205	1-216-037-00	METAL CHIP	330	5%	1/10W
R206	1-216-037-00	METAL CHIP	330	5%	1/10W
R207	1-216-001-00	METAL CHIP	10	5%	1/10W
R208	1-216-049-11	RES, CHIP	1K	5%	1/10W
R209	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R210	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R211	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R212	1-216-097-00	RES, CHIP	100K	5%	1/10W
R213	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R214	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R215	1-216-121-00	RES, CHIP	1M	5%	1/10W
R216	1-216-097-00	RES, CHIP	100K	5%	1/10W
R217	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R300	1-216-089-00	RES, CHIP	47K	5%	1/10W
R301	1-216-089-00	RES, CHIP	47K	5%	1/10W
R302	1-216-013-00	METAL CHIP	33	5%	1/10W
R303	1-216-013-00	METAL CHIP	33	5%	1/10W
R304	1-216-115-00	METAL CHIP	560K	5%	1/10W
R305	1-216-115-00	METAL CHIP	560K	5%	1/10W
R306	1-216-077-00	RES, CHIP	15K	5%	1/10W
R307	1-216-077-00	RES, CHIP	15K	5%	1/10W
R308	1-216-049-11	RES, CHIP	1K	5%	1/10W
R309	1-216-049-11	RES, CHIP	1K	5%	1/10W
R310	1-216-073-00	METAL CHIP	10K	5%	1/10W

MAIN

Ref. No.	Part No.	Description			Remark
R311	1-216-073-00	METAL CHIP	10K	5%	1/10W
R312	1-247-807-31	CARBON	100	5%	1/4W
R400	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R401	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R402	1-216-033-00	METAL CHIP	220	5%	1/10W
R403	1-216-033-00	METAL CHIP	220	5%	1/10W
R404	1-216-033-00	METAL CHIP	220	5%	1/10W
R405	1-216-033-00	METAL CHIP	220	5%	1/10W
R406	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R407	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R408	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R409	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R410	1-216-089-00	RES, CHIP	47K	5%	1/10W
R411	1-216-089-00	RES, CHIP	47K	5%	1/10W
R412	1-216-089-00	RES, CHIP	47K	5%	1/10W
R413	1-216-089-00	RES, CHIP	47K	5%	1/10W
R414	1-216-295-00	SHORT	0 (C2300R)		
R415	1-216-295-00	SHORT	0 (C2300R)		
R416	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (C2300R)
R417	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (C2300R)
R418	1-216-073-00	METAL CHIP	10K	5%	1/10W (C2300R)
R419	1-216-073-00	METAL CHIP	10K	5%	1/10W (C2300R)
R420	1-249-393-11	CARBON	10	5%	1/4W
R500	1-216-089-00	RES, CHIP	47K	5%	1/10W
R501	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R502	1-216-073-00	METAL CHIP	10K	5%	1/10W
R503	1-216-073-00	METAL CHIP	10K	5%	1/10W
R602	1-216-089-00	RES, CHIP	47K	5%	1/10W (1300R)
R605	1-216-081-00	METAL CHIP	22K	5%	1/10W
R606	1-216-081-00	METAL CHIP	22K	5%	1/10W
R607	1-216-089-00	RES, CHIP	47K	5%	1/10W (1300R)
R608	1-216-089-00	RES, CHIP	47K	5%	1/10W (1300R)
R609	1-216-097-00	RES, CHIP	100K	5%	1/10W
R610	1-216-097-00	RES, CHIP	100K	5%	1/10W
R611	1-216-073-00	METAL CHIP	10K	5%	1/10W
R612	1-216-073-00	METAL CHIP	10K	5%	1/10W
R613	1-216-025-00	RES, CHIP	100	5%	1/10W
R614	1-216-025-00	RES, CHIP	100	5%	1/10W
R615	1-216-025-00	RES, CHIP	100	5%	1/10W
R616	1-216-025-00	RES, CHIP	100	5%	1/10W
R617	1-216-025-00	RES, CHIP	100	5%	1/10W
R618	1-216-105-00	RES, CHIP	220K	5%	1/10W
R619	1-216-049-11	RES, CHIP	1K	5%	1/10W
R621	1-216-073-00	METAL CHIP	10K	5%	1/10W
R622	1-216-081-00	METAL CHIP	22K	5%	1/10W
R700	1-249-413-11	CARBON	470	5%	1/4W
R701	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R702	1-249-421-11	CARBON	2.2K	5%	1/4W
R703	1-216-081-00	METAL CHIP	22K	5%	1/10W
R705	1-249-425-11	CARBON	4.7K	5%	1/4W
R706	1-216-089-00	RES, CHIP	47K	5%	1/10W
R707	1-216-081-00	METAL CHIP	22K	5%	1/10W
R708	1-249-421-11	CARBON	2.2K	5%	1/4W
R709	1-216-097-00	RES, CHIP	100K	5%	1/10W
R710	1-249-385-11	CARBON	2.2	5%	1/6W
R711	1-249-385-11	CARBON	2.2	5%	1/6W
R712	1-249-385-11	CARBON	2.2	5%	1/6W
R713	1-249-385-11	CARBON	2.2	5%	1/6W
R714	1-216-073-00	METAL CHIP	10K	5%	1/10W
R715	1-216-295-00	SHORT	0		
R716	1-247-185-11	CARBON	2.7	5%	1/2W
R717	1-249-421-11	CARBON	2.2K	5%	1/4W
R718	1-247-752-11	CARBON	1K	5%	1/2W (C2300R)
R719	1-216-073-00	METAL CHIP	10K	5%	1/10W
R720	1-216-049-11	RES, CHIP	1K	5%	1/10W
R721	1-216-049-11	RES, CHIP	1K	5%	1/10W
R800	1-216-017-00	RES, CHIP	47	5%	1/10W (C2300R)
R801	1-216-097-00	RES, CHIP	100K	5%	1/10W (1300R)
R802	1-216-025-00	RES, CHIP	100	5%	1/10W (C2300R)
R803	1-216-073-00	METAL CHIP	10K	5%	1/10W (C2300R)
R804	1-216-025-00	RES, CHIP	100	5%	1/10W (C2300R)
		< COMPOSITION CIRCUIT BLOCK >			
RN1	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
RN800	1-216-845-11	METAL CHIP	100K	5%	1/16W (1300R)
		< SWITCH >			
S2	1-692-431-21	SWITCH, TACTILE (RESET)			
		< TUNER >			
TU100	1-693-440-12	TUNER UNIT (FM/AM)			
		< VARIABLE RESISTOR >			
VR100	1-241-768-11	RES, ADJ, CARBON 220K			
		< VIBRATOR >			
X1	1-767-833-21	VIBRATOR, CERAMIC (3.68MHz)			
X2	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
X100	1-781-246-21	VIBRATOR, CRYSTAL (10.25MHz)			
X201	1-579-242-11	VIBRATOR, CRYSTAL (4.332MHz)			

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MISCELLANEOUS

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9	1-776-527-31	CORD (WITH CONNECTOR) (ISO) (POWER)
66	1-694-696-11	CONDUCTOR BOARD, CONNECTION
F601	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)
HP901	1-500-661-11	HEAD (PLAYBACK)
LCD900	1-803-841-11	DISPLAY PANEL, LIQUID CRYSTAL
M901	1-763-507-11	MOTOR (CAPSTAN/REEL)
S901	1-771-928-11	SWITCH (SLIDE) (DIRECTION)
S902	1-771-926-11	SWITCH (LEAF) (FF/REW)

Ref. No.	Part No.	Description	Remark
S903	1-771-927-11	SWITCH (LEAF) (TAPE DETECT)	

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HARDWARE LIST
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#1	7-685-782-09	SCREW +PTT 2X5 (S)	
#2	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#3	7-685-794-09	SCREW +PTT 2.6X10 (S)	
#4	7-685-105-19	TPG +P 2X8, TYPE 2, NON-SLIT	
#6	7-627-553-27	PRECISION SCREW +P 2X2.5 TYPE3	
#7	7-685-101-11	SCREW +PTP 2X3 NON-SLIT	
#8	7-621-255-35	SCREW +P 2X5	
#9	7-621-255-25	SCREW +P 2X4	
#10	7-685-781-09	SCREW +PTT 2X4 (S)	

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ACCCESSORIES & PACKING MATERIALS
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3-044-698-11	MANUAL, INSTRUCTION (ENGLISH, SPANISH, SWEDISH, PORTUGUESE) (1300R: AEP, UK)	
3-044-698-21	MANUAL, INSTRUCTION (FRENCH, GERMAN, DUTCH, ITALIIAN, GREEK) (1300R: AEP)	
3-044-698-31	MANUAL, INSTRUCTION (GERMAN) (1300R: German)	
3-044-698-41	MANUAL, INSTRUCTION (ENGLISH, CZECH, POLISH, TURKISH, RUSSIAN) (1300R: South European)	
3-868-292-11	CONNECTION, FITTING (ENGLISH, SPANISH, SWEDISH, PORTUGUESE) (AEP, UK)	
3-868-292-21	CONNECTION, FITTING (FRENCH, GERMAN, DUTCH, ITALIIAN, GREEK) (AEP/C2300R: South European)	
3-868-292-31	CONNECTION, FITTING (ENGLISH, CZECH, POLISH, TURKISH, RUSSIAN) (1300R: South European)	
3-868-293-11	MANUAL, INSTRUCTION (ENGLISH, SPANISH, SWEDISH, PORTUGUESE) (C2300R: AEP, UK)	
3-868-293-21	MANUAL, INSTRUCTION (FRENCH, GERMAN, DUTCH, ITALIIAN, GREEK) (C2300R: AEP)	
3-868-293-31	MANUAL, INSTRUCTION (GERMAN) (C2300R: German)	
3-868-293-41	MANUAL, INSTRUCTION (ENGLISH, CZECH, POLISH, TURKISH, RUSSIAN) (C2300R: South European)	
X-3378-453-1	CASE (PANEL) ASSY (for FRONT PANEL)	

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PARTS FOR INTALLATION AND CONNECTIONS
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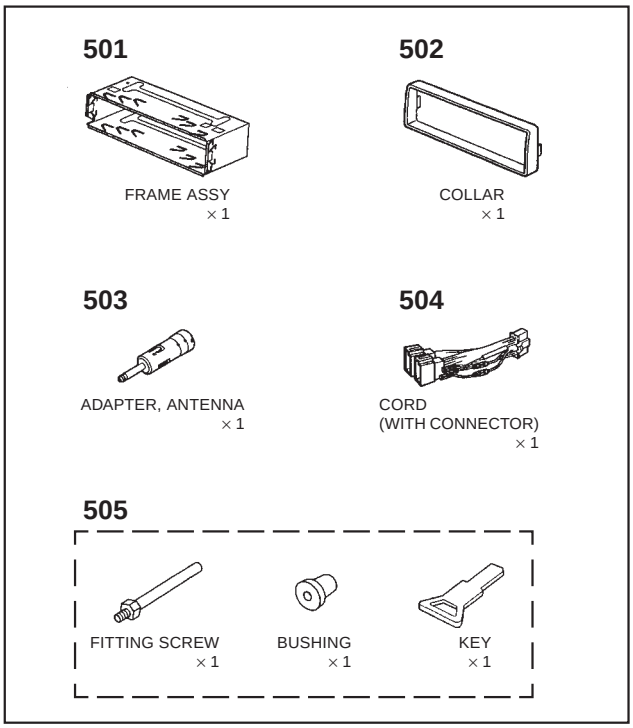
501	X-3376-298-1	FRAME ASSY, FITTING
502	3-041-599-01	COLLAR
503	1-465-459-21	ADAPTER, ANTENNA
504	1-776-527-31	CORD (WITH CONNECTOR) (ISO) (POWER)
505	X-3370-077-1	SCREW ASSY (AE. KEY), FITTING



REVISION HISTORY

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Ver.	Date	Description of Revision
1.1	2001.02	Ref. No. 58 BUTTON (CROSS) (1300R) Correction of Part No. (ECN-CSA01922)
1.0	2000.01	New